PERMIT #65614
PLACE ID #3222

PERMITTEE: **Tucson Electric Power Company**
FACILITY: **Springerville Generating Station**
PERMIT TYPE **Class I Air Quality Permit**
DATE ISSUED:
EXPIRY DATE:

SUMMARY

This Class I, Title V operating permit renewal is issued to Tucson Electric Power Company (TEP), the Permittee, for the continued operation of its Springerville Generating Station (SGS), located in Apache County, approximately 15 miles North of Springerville, Arizona. The area is either unclassified or is classified as being in attainment for all criteria pollutants. This is a renewal of Operating Permit #53418.

The Springerville Generating Station is classified as a Class I, Major Source. The potential emission rates of the particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxides (CO), volatile organic compounds (VOCs), and sulfuric acid mist are greater than 100 tons per year. In addition, SGS has potential emission rates of hazardous air pollutants in excess of 25 tons per year in total, and in excess of the major source threshold of 10 tons per year for one or more of the cyanide compounds, hydrogen chloride, and hydrogen fluoride. SGS is also subject to the Acid Rain Program of the Clean Air Act.

The facility operates four pulverized coal-fired units (Unit 1, 2, 3, and 4) with Unit 1 being capable of firing coal, co-firing coal and fuel oil (including biodiesel), and co-firing coal and on-specification used oil. Unit 2 is capable of firing coal and fuel oil (including bio-diesel). In addition to the coal-fired units, SGS includes various ancillary facilities such as an oil-fired auxiliary boiler, a coal preparation plant, coal storage piles, lime storage and handling facilities, two mechanical-draft wet cooling towers.

A PSD permit to construct Unit 3 and Unit 4 was issued on April 29, 2002. Unit 3 commenced operation in the year 2006 and Unit 4 commenced operation on December 17, 2009. Unit 3 and Unit 4 are capable of firing coal and #2 distillate oil (including bio-diesel) as fuel, with each rated to produce approximately 420 net megawatts. Baghouses are utilized to capture particulate matter emissions; spray dry absorbers to control emissions of SO_2 and other acid gases; and low-NO_x burners and selective catalytic reduction (SCR) units to control nitrogen oxides emissions. Prevention of Significant Deterioration (PSD) review was completed for PM, $PM_{10,}$ CO, VOC, and fluorides. By accepting voluntarily emission caps on facility-wide emissions of SO_2, NO_x, and sulfuric acid mist, the facility opted out of PSD review for these pollutants.

In addition to the coal-fired units, SGS includes various ancillary facilities such as an oil-fired auxiliary boiler, a coal preparation plant, coal storage piles, lime storage and handling facilities, two mechanical-draft wet cooling towers. As part of the major modification to add Unit 3 and Unit 4, two new mechanical-draft wet cooling towers using high-efficiency drift eliminators, new lime storage and handling facilities using enclosures and fabric filters, and new anhydrous ammonia storage tanks were installed. The coal preparation plant and coal storage was expanded to accommodate the two new Units 3 and 4.

In addition to the above-mentioned conventional air pollutants control measures, all four coal-fired units at SGS are now equipped with pre-combustion calcium bromide injection and post-combustion activated carbon injection for mercury removal.

This permit is issued in accordance with Title V of the Clean Air Act, and Title 49, Chapter 3 of the Arizona Revised Statutes. All definitions, terms, and conditions used in this permit conform to those in the Arizona

Administrative Code R18-2-101 et. seq. (A.A.C) and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the A.A.C. All material permit conditions have been identified within the permit by underline and italics. All terms and conditions of this permit are enforceable by the Administrator of the United States Environmental Protection Agency (U.S. EPA) except for those terms and conditions that are specifically designated as "State Requirements."

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ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

[ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

A. This permit is valid for a period of five years from the date of issuance.

B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

II. COMPLIANCE WITH PERMIT CONDITIONS

[A.A.C. R18-2-306.A.8.a and b]

A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the and air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

[A.A.C. R18-2-306.A.8.c, -321.A.1, and 2]

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. The permit shall be reopened and revised under any of the following circumstances

1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless an application for renewal has been submitted pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term.

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions

standards or other terms or conditions of the permit.

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

C. Proceedings to reopen and reissue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1, affect only those parts of the permit for which cause to reopen exists.

IV. POSTING OF PERMIT

[A.A.C. R18-2-315]

A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:

1. Current permit number; or

2. Serial number or other equipment ID number that is also listed in the permit to identify that piece of equipment.

B. A copy of the complete permit shall be kept on site.

V. FEE PAYMENT

[A.A.C. R18-2-306.A.9 and -326]

The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

[A.A.C. R18-2-327.A]

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.B.

[A.A.C. R18-2-327.B]

VII. COMPLIANCE CERTIFICATION

[A.A.C. R18-2-309.2.a, -309.2.c-d, and -309.5.d]

A. The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;

2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period,

3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.A.2. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

5. All instances of deviations from permit requirements reported pursuant to Condition XII.B; and

6. Other facts the Director may require to determine the compliance status of the source.

B. A copy of all compliance certifications shall also be submitted to the EPA Administrator.

C. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A.

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

[A.A.C. R18-2-304.I]

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

IX. INSPECTION AND ENTRY

[A.A.C. R18-2-309.4]

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of

assuring compliance with the permit or other applicable requirements; and

E. Record any inspection by use of written, electronic, magnetic and photographic media.

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

[A.A.C. R18-2-304.D.3]

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

XI. ACCIDENTAL RELEASE PROGRAM

[40 CFR Part 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A, B, and C]

1. Excess emissions shall be reported as follows:

   a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

      (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b.

      (2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.(1).

   b. The report shall contain the following information:

      (1) Identity of each stack or other emission point where the excess emissions occurred;

      (2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

      (3) Date, time and duration, or expected duration, of the excess emissions;

      (4) Identity of the equipment from which the excess emissions

emanated;

(5) Nature and cause of such emissions;

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and

(7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

[A.A.C. R18-2-306.A.5.b]

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable requirements contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or time frame shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations in compliance with the following schedule:

1. Notice that complies with A.A.C. R 18-2-310.01(A) is prompt for deviations that constitute excess emissions;

2. Notice regarding malfunctions or breakdowns of pollution control equipment or emissions monitoring systems that are submitted within two working days of discovery shall be considered prompt.

3. Except as provided in Condition XII.B.1 and 2, notice that complies with A.A.C. R18-2-306.A.5.a is prompt for all other types of deviation.

C. Emergency Provision

[A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

   b. The permitted facility was being properly operated at the time;

   c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

   d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule

[ARS § 49-426.I.3]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

E. Affirmative Defenses for Excess Emissions due to Malfunctions, Startup, and Shutdown

[A.A.C. R18-2-310]

1. Applicability

   This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

   a. Promulgated pursuant to Sections 111 or 112 of the Act;

   b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;

   c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;

d. Contained in A.A.C. R18-2-715.F; or

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

i. All emissions monitoring systems were kept in operation if at all practicable; and

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XII.E.3.b, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

(1) The excess emissions could not have been prevented through careful and prudent planning and design;

(2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

(7) All emissions monitoring systems were kept in operation if at all practicable; and

(8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or 3, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

XIII. RECORD KEEPING REQUIREMENTS

[A.A.C. R18-2-306.A.4]

A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;

3. The name of the company or entity that performed the analyses;

4. A description of the analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions as existing at the time of sampling or measurement.

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

XIV. REPORTING REQUIREMENTS

[A.A.C. R18-2-306.A.5.a]

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII.

B. Excess emission; permit deviation, and emergency reports in accordance with Section XII.

C. Other reports required by any condition of Attachment "B".

XV. DUTY TO PROVIDE INFORMATION

[A.A.C. R18-2-304.G and -306.A.8.e]

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XVI. PERMIT AMENDMENT OR REVISION

[A.A.C. R18-2-318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVII, as follows:

A. Administrative Permit Amendment (A.A.C. R18-2-318);

B. Minor Permit Revision (A.A.C. R18-2-319); and

C. Significant Permit Revision (A.A.C. R18-2-320)

The applicability and requirements for such action are defined in the above referenced regulations.

XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION

[A.A.C. R18-2-317]

A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:

1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);

2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;

3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;

4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;

5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and

6. The changes do not constitute a minor NSR modification.

B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and C.

C. For each change under Conditions XVII.A and B, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in

advance of the change~~,~~ as possible or, if advance notification is not practicable, as soon after the change as possible.

D. Each notification shall include:

1. When the proposed change will occur;

2. A description of the change;

3. Any change in emissions of regulated air pollutants; and

4. Any permit term or condition that is no longer applicable as a result of the change.

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate to Conditions XVII.A and B.

F. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section.

G. Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, do not satisfy Condition XVII.A.

XVIII. TESTING REQUIREMENTS

[A.A.C. R18-2-312]

A. The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

B. Operational Conditions during Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

C. Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

D. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan must include the following:

1. Test duration;

2. Test location(s);

3. Test method(s); and

4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;

2. Safe sampling platform(s);

3. Safe access to sampling platform(s); and

4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

XIX. PROPERTY RIGHTS

[A.A.C. R18-2-306.A.8.d]

This permit does not convey any property rights of any sort, or any exclusive privilege.

XX. SEVERABILITY CLAUSE

[A.A.C. R18-2-306.A.7]

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

XXI. PERMIT SHIELD

[A.A.C. R18-2-325]

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield". The permit shield shall not apply to minor revisions pursuant to Condition XVI.B and any facility changes without a permit revision pursuant to Section XVII.

XXII. PROTECTION OF STRATOSPHERIC OZONE

[40 CFR Part 82]

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

XXIII. APPLICABILITY OF NSPS/ NESHAP GENERAL PROVISIONS

[40 CFR Part 60 and Part 63]

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Opacity

1. Instantaneous Surveys and Six-Minute Observations

a. Instantaneous Surveys

Any instantaneous survey required by this permit shall be determined by either option listed in Conditions I.A.1.a(1) and (2) below:

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.
[A.A.C. R18-2-311.b]

(2) EPA Reference Method 9 Certified Observer.
[A.A.C. R18-2-306.A.3.c]

b. Six-Minute Observations

Any six-minute observation required by this permit shall be determined by either option listed in Conditions I.A.1.b(1) and (2) below:

(1) Alternative Method ALT-082 (Digital Camera Operating Technique)

(a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

(b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.
[A.A.C. R18-2-311.b]

(2) EPA Reference Method 9.

2. Monitoring, Recordkeeping, and Reporting Requirements
[A.A.C. R18-2-306.A.3.c]

a. At the frequency specified in following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.

b. If the plume on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was

made, and the results of the instantaneous survey.

c. If the plume on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the plume.

(1) If the six-minute observation of the plume is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.

(2) If the six-minute observation of the plume is greater than the applicable opacity standard, then the Permittee shall do the following:

(a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;

(b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and

(c) Report the event as an excess emission for opacity in accordance with Condition XII.A of Attachment "A".

(d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed

[A.A.C. R18-2-306.A.3.c]

B. At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit reports of all monitoring activities required by Attachment "B" performed during the six month compliance term.

[A.A.C. R18-2-306.A.5.a]

C. The permit conditions or portions of the permit conditions which are material permit conditions pursuant to A.A.C. R18-2-331 and A.R.S. §49-464 are indicated by italics and a single underline.

[A.A.C. R18-2-331.A.2]

D. Definitions

The terms used in this permit shall have the following meaning:

1. "Boiler operating day"

[40 CFR 60.41Da]

a. For units constructed, reconstructed, or modified on or before February 28, 2005, means a 24-hour period during which fossil fuel is combusted in a steam generating unit for the entire 24 hours.

b. For units constructed, reconstructed, or modified after February 28, 2005, means a 24-hour period between 12 midnight and the following midnight

during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24-hour period.

2. "Calendar Day" means any 24-hour period between 12:00 midnight and the following midnight in Arizona.
[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D Ariz.), §3(b)]

3. "Cooling Tower 1" and "Cooling Tower 2" are the existing mechanical-draft wet cooling towers at the Springerville Generating Station (SGS).
[Condition No. I.B.2. of Attachment "B" of Significant Permit Revision No. 1001554 to Permit No. 1000105]

4. "Cooling Tower 3" and "Cooling Tower 4" are the new mechanical-draft wet cooling towers at the SGS associated with Unit 3 & Unit 4.
[Condition No.I.B.3. of Attachment "B" of Significant Permit Revision No. 1001554 to Permit No. 1000105]

5. "Gross Output" means the gross useful work performed by the steam generated. The gross useful work performed is equal to the gross electrical output from the turbine/ generator set.
[40 CFR 60.41Da]

6. "Heat Input" means the aggregate gross calorific value of all fuels whose products of combustion pass through a stack or other outlet. The gross calorific value of solid and liquid fuels shall be determined in accordance with appropriate test methods that are incorporated by reference at 40 CFR 60.17 or A.A.C. R18-2-724.
[A.A.C. R18-2-724 and 40 CFR Part 60, Appendix A, Method 19]

7. "Major Burner Malfunction" is, for the purposes of complying with the NO_x emission limitation in Condition II.E.1.c, a malfunction (as defined in Condition I.D.8) that is unanticipated and that requires extensive repairs to the low NO_x burners and the Secondary Overfire Air dampers that are internal to the boiler at Unit 1 or 2.
[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(f)]

8. *Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(e)]

9. "NO_x" means total oxides of nitrogen, except nitrous oxide, which are expressed as nitrogen dioxide (NO_2) using EPA Reference Method 7.
[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(g)]

10. "Potential combustion concentration" means the theoretical emissions that would result from combustion of a fuel without emission control systems.
[40 CFR 60.41Da and A.A.C. R18-2-406.A.4]

11. "PM" or "Particulate Matter" mean any airborne, finely divided solid or liquid material, other than uncombined water, with an aerodynamic diameter smaller than 100 micrometers, and which is expressed as PM using EPA Reference.
[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(j)]

12. "Shutdown" means the cessation of operation of a steam generating unit for any purpose.
[40 CFR 60.2]

13. "SO_2" means sulfur dioxide.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(l)]

14. "Startup" means the setting in operation of a steam generating unit for any purpose.

[40 CFR 60.2]

15. "Steam generating unit" shall mean Unit 1, Unit 2, Unit 3, or Unit 4. For the purposes of Unit 1 and Unit 2, this term shall have the same meaning as "fossil-fuel fired steam generating unit" as defined at 40 CFR 60.41(a). For the purposes of Unit 3 and Unit 4, this term shall have the same meaning as "electric utility steam generating unit" as defined in 40 CFR 60.41Da.

[Condition No.I.B.12 of Attachment "B" of Significant Permit Revision No. 1001554 to Permit No. 1000105]

16. Unit means Unit 1, Unit 2, Unit 3, or Unit 4.

17. "Unit 1" and "Unit 2"

Unit 1 and Unit 2 are the existing steam generating units at the SGS.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 3(o)]
[Condition No.I.B.13 of Attachment "B" of Significant Permit Revision No. 1001554 to Permit No. 1000105]

18. "Unit 3" and "Unit 4"

Unit 3 and Unit 4 are steam generating units at the SGS. Each of these units is an "affected facility" under 40 CFR Part 60, Subpart Da, "Standards of Performance for Electric Utility Steam Generating Units for which Construction Commenced after September 18, 1978."

[Condition No.I.B.14 of Attachment "B" of Significant Permit Revision No. 1001554 to Permit No. 1000105]

19. For purposes of the sulfur dioxide standard in Condition II.D.1.d and the nitrogen oxide standard in Condition II.E.1.c, the following terms shall be defined as follows:

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 17(d)]

a. "Emission Rate" means the total amount of a pollutant emitted from an emission unit during a given time period, expressed in lbs/MMBtu, derived for SO_2 and NO_x from a SO_2 or NO_x continuous emission monitoring system and diluent (O_2 or CO_2) monitoring system consistent with 40 CFR Part 75.

b. "Hourly Average" means the calculated arithmetic average hourly emission rate, expressed in lbs./MMBtu, derived from an SO_2 and/or NO_x continuous emission monitoring system and diluent (CO_2 or O_2) monitoring system consistent with 40 CFR 75, collected during an hour, beginning on the hour.

c. "Daily Average" means the arithmetic average of the Hourly Averages for a Unit in a Day.

d. "Combined Daily Average" means the arithmetic average of the Daily Averages of Unit 1 and Unit 2 on a given day. For days when only one Unit has any operating hours, the Combined Daily Average shall be the Daily Average for that Unit.

e. "Monthly Average" means the arithmetic average of the Combined Daily Average Emission Rates for Units 1 and 2 for a calendar month.

20. For purposes of the sulfur dioxide control efficiency in Condition II.D.1.e, the following terms shall be defined as follows:

a. "Hourly Average Stack Outlet Sulfur Dioxide Concentration" means the calculated arithmetic average hourly emission rate, expressed in lbs/MMBtu, derived from an SO_2 and/or NO_x continuous emission monitoring system and diluent (CO_2 or O_2) monitoring system consistent with 40 CFR 75, collected during an hour, beginning on the hour, using the SGS existing SO_2 Continuous Emission Monitoring System.

b. "Hourly Average Boiler Inlet Sulfur Dioxide Concentrations" means the calculated hourly inlet sulfur dioxide concentration, expressed in lbs./MMBtu, derived from all valid measurements or data points collected from the monitoring system (referred to in Condition II.B.1.d.(3)) during an hour, beginning on the hour; provided however, that:

(1) in the event the monitoring system is not in operation due to maintenance and/or malfunction, the Permittee shall substitute for each hour the average sulfur dioxide concentration from the previous 30 days of data from such monitoring system; and

(2) if the monitoring system has not yet been in service for 30 days, the Permittee shall use the previous 30 days of coal analysis as received from the coal vendor.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 18(f)]

E. For the purposes of this permit, unless otherwise specified in the applicable standards, for any facilities subject to the new source performance standards (NSPS) from 40 CFR Part 60, compliance with such standards other than opacity standards shall be determined in accordance with performance tests. The performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the specific requirements for each emission unit or group of emission units.

[40 CFR 60.8(b) and 60.11(a)]

F. For the purposes of this permit, for any facilities subject to the NSPS from 40 CFR Part 60, compliance with the new source opacity standards shall be determined by conducting observations in accordance with EPA Reference Method 9, or any alternative method that is approved by the Director, unless the Permittee elects to submit continuous opacity monitoring system data for compliance with the opacity standards.

[40 CFR 60.11(b)]

G. For the purposes of submitting compliance certifications or establishing whether or not Permittee has violated or is in violation of any NSPS from 40 CFR Part 60 subsumed under Attachment "B", nothing in Attachment "B" shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with such standards if the appropriate performance or compliance test or procedure had been performed.

[40 CFR 60.11(g)]

H. For the purposes of this permit, the EPA Reference Method 9 reading shall be defined as an

average of 24 consecutive opacity observations recorded at 15-second intervals. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24.

[A.A.C. R18-2-306.A.3.b and 40 CFR Part 60, Appendix A, Method 9]

II. UNIT 1 AND UNIT 2 (P1 AND P2)

A. Applicability

This Section applies to Unit 1 and Unit 2 as described in Condition I.D.17 and Equipment List, Attachment "C".

B. Operating Limitations

1. Fuel Limitations

a. Unit 1

[A.A.C. R18-2-306.A.2 and A.R.S. 49.426.G.1]

(1) The Permittee shall burn only the following as fuel in Unit 1:

(a) Coal;

(b) Co-firing of coal and fuel oil including bio-diesel;

(c) Co-firing of coal and used oil subject to the limits specified in Conditions II.B.1.a.(2) and (3); and

(d) Fuel oil during times of startup and shut down.

(2) The maximum amount of used oil consumed in Unit 1 shall not exceed 2,500 gallons per hour, based on a calendar-day block average, or 100,000 gallons per year, based on a 12-month rolling total.

(3) The Permittee shall only burn on-specification used oil or on-site generated on-specification used oil fuel (on-spec used oil) along with coal in the Unit 1, if the following conditions are met:

(a) The flash point of the on-spec used oil does not fall below 100^{o} Fahrenheit.

(b) The Permittee shall comply with all applicable requirements of A.R.S. §49-801 through §49-803-Management of Used Oil.

(c) The on-spec used oil shall not contain contaminants in excess of the levels indicated in Table 1:

Table 1: Contaminant Levels

Name of Pollutant	Limit
Arsenic	5 ppm
Cadmium	2 ppm
Chromium	10 ppm
Lead	100 ppm
Halogens	1000 ppm
PCBs	2 ppm

b. Unit 2

[A.A.C. R18-2-306.A.2]

The Permittee shall burn only the following as fuel in Unit 2:

(1) Coal;

(2) Co-firing of coal and fuel oil including bio-diesel; and

(3) Fuel oil during times of startup and shut down.

c. Monitoring/Recordkeeping/Reporting Requirements

(1) The Permittee shall keep a record of any change in fuel type at Unit 1 and Unit 2 including:

(a) Type of the fuel change;

(b) Date of the fuel change; and

(c) Time of the fuel change.

[A.A.C. R18-2-306.A.3.c]

(2) Used Oil

[A.R.S § 49-426.G.4]

(a) All analyses of used oil performed pursuant to Condition II.B.1.d(1) shall be documented and a report submitted to the Department along with the compliance certification.

(b) The Permittee shall maintain such records as required to document the use of used oil including the following:

(i) Dates on which used oil was burned;

(ii) Hours used oil was burned; and

(iii) The quantity of used oil burned.

d. Testing Requirements

(1) Used Oil

The Permittee shall perform or cause to be performed an analysis of a representative sample of any used oil to be combusted in Unit 1. The analysis shall include flash point and concentrations (ppm) of Arsenic, Cadmium, Chromium, and Lead using the analytical methods specified in EPA Publication SW-846, Third Edition, including update III B (document number 955-001-00000-1). All sample analyses shall be conducted in laboratories certified by the Arizona Department of Health Services.

[A.R.S.§ 49-426.G.2]

(2) Coal Sampling

Coal shall be sampled before entering the boilers. The sample shall be analyzed for moisture, ash, sulfur content, and gross calorific value. Analysis of coal samples provided by the coal supplier may be utilized for this purpose. The results of these analyses shall be retained for at least five years following the date of measurements. All sampling, sample preparation, and analyses performed or caused to be performed shall be performed as per the current ASTM standard methods.

[Condition XI of EPA Approval to Construct of December 2, 1977]

(3) Monitoring Systems

The Permittee shall operate either an in-line elemental coal analyzer upstream of both the Unit 1 and Unit 2 boilers, which will be available to both Units, or an "as-fired" fuel monitoring system (upstream of the coal pulverizer) meeting the requirements of EPA Reference Method 19 in 40 CFR 60 to determine the potential sulfur dioxide inlet concentration.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 7]

2. Vapor Extractor Blower Vents, Generator Seal Oil Vapor Extractor and Hydraulic Fluid Reservoir Vapor Extractors

[A.A.C. R18-2-730.F]

The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or

discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.

3. Fuel Oil Storage Tank (For Unit 1, Unit 2, and Unit 3)

   a. The Permittee shall not emit gaseous or odorous material from equipment, operations, or premises under his control in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]

   b. The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.
   [A.A.C. R18-2-730.F]

   c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
   [A.A.C. R18-2-730.G]

4. Good Air Pollution Control Practices

   The Permittee shall at all times, including periods of startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12, and 14), maintain and operate Unit 1 and Unit 2 in a manner consistent with good air pollution control practices for minimizing emissions. Without limiting the Permittee's obligations in the event of a malfunction, from and after the effective date of this Permit, the Permittee shall address each malfunction affecting Unit 1 or Unit 2 and take corrective action, when possible, within 24 hours of when the Permittee first learns of the malfunction. Malfunctions that cannot be corrected within a 24 hour period shall be reported to the ADEQ within two (2) business days and a plan for bringing the affected Unit(s) into compliance shall be submitted to the ADEQ within seven (7) business days, unless the malfunction can be corrected within seven (7) business days.
   [Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 15]

5. Permit Shield
   [A.A.C.R18-2-325]

   Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R18-2-730.D, F, & G, Condition XI of EPA Approval to Construct of December 2,1977 and Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 15.

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity

The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1 or Unit 2 any gases which exhibit greater than 15 percent opacity except for periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14.

[40 CFR 60.11(c) and A.A.C. R18-2-331.A.3.f]
[Condition XIII of Approval to Construct of December 21, 1977]
[Material Permit Conditions are defined by underline and italics]

b. Particulate Matter

(1) The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1 and Unit 2 any gases which contain PM/PM_{10} in excess of 0.034 lb per million Btu derived from fossil fuel except for periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14.

[Condition XIII of Approval to Construct of December 21, 1977 and 40 CFR 60.8 (c)]

(2) Unless otherwise specified, the PM/PM_{10} emission limit defined above shall be measured by manual testing on a one-hour average (the average of three one-hour tests).

[A.A.C. R18-2-312]

(3) The Permittee shall not cause to be discharged to the atmosphere from the stacks of Unit 1 and Unit 2 any gases which contain PM/PM_{10} in excess of 0.03 lb/MMBtu derived from fossil fuel, except for periods of startup, shutdown, or malfunction as defined in Condition #s I.D.8, 12, and 14.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 11]

2. Air Pollution Control Requirements

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

At all times when the equipment is in operation, including periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14, the Permittee shall, to the extent practicable, maintain and *operate four (4) Joy baghouses in a manner consistent with good air pollution control practice for minimizing PM/PM_{10} emissions.*

3. Monitoring, Recordkeeping, and Reporting Requirements

a. Opacity

(1) Monitoring for Opacity

(a) *The Permittee shall calibrate,* maintain, and operate *continuous monitoring systems, and shall record the output of the systems, for measuring the opacity of*

emissions discharged to the atmosphere from Unit 1 and Unit 2.

[40 CFR 60.45(a), A.A.C. R18-2-306.A.3, and -331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

(b) The Permittee shall comply with all recordkeeping and reporting requirements of 40 CFR Part 75, Subparts F and G respectively.

(c) The continuous opacity monitoring systems (COMS) shall meet the following data reduction requirements:

[40 CFR 60.13(h)]

(i) The Permittee shall reduce all data from the COMS to 6-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(ii) Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under the previous paragraph. An arithmetic or integrated average of all data may be used.

(2) NSPS Requirements for Continuous Monitoring Systems

The continuous opacity monitoring system for opacity as required by Condition II.C.3.a.(1)(a) shall meet the following requirements:

(a) Calibration requirements at 40 CFR 60.13(d)

(b) Operational requirements at 40 CFR 60.13(e)

(c) Performance Specifications at 40 CFR Part 60, Appendix B.

(d) Notification and recordkeeping requirements at 40 CFR 60.7.

b. Compliance Assurance Monitoring for Particulate Matter

(1) The Permittee shall maintain and continuously operate Continuous Opacity Monitoring Systems (COMS) to measure visible emissions (Opacity) which is indicative of operation of the Unit 1 and Unit 2 fabric filters in a manner necessary to comply with PM/PM_{10} emission standards. The fabric filter parameters are identified in Table 2.

[40 CFR 64.6(c)(1) and A.A.C. R18-2-306.A.3.c]

Table 2: Summary of CAM Requirements applicable to Unit 1 and Unit 2 (PM Limits)

Indicators	*Indicator No. 1: Visible Emissions Opacity*	*Indicator No. 2: Bag condition.*
Measurement Approach	Visible Emissions (Opacity) will be measured continuously with a continuous Opacity Monitoring System (COMS) installed on each stack.	Sampling and analysis of representative bag samples will be done once per year. The analyses of representative bag samples will be used as a factor in determining when bag replacement is to be scheduled. The Baghouse will have an inspection and maintenance program that includes an internal inspection of the baghouse to be performed during a scheduled major outage. Any known broken bags will be either replaced or capped off until ready to be replaced. Compartments with one or more broken bags, that have not been capped off or replaced, will be isolated.
Indicator Range	Visible Emissions greater than 12 percent Opacity based on a 3-hour rolling average (except during unit startup, shutdown, and malfunction as defined in Condition #s. I.D.8, 12, and 14).	An excursion is defined as failure to sample and analyze bag condition at least once per year. Excursions trigger an inspection, corrective action, and a reporting requirement.
	An excursion from the indicator ranges does not necessarily indicate an exceedance, deviation, or violation, but is indicative of the need for investigation and possible corrective action to minimize the potential for an exceedance, deviation, or violation.	
Performance Criteria - Data Representativeness	Visible emissions (Opacity is measured on stack)	Scheduled internal baghouse inspection includes a visual inspection of the entire baghouse including individual bag compartments for signs of bag failure.
Performance Criteria - Operation Status	n/a	n/a
Performance Criteria - QA/QC Practices	TEP is required by the permit to meet the QA/QC requirements of 40 CFR Part 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"	Experienced personnel perform inspections and maintenance.
Performance Criteria - Monitoring Frequency	Continuous opacity monitoring with data recorded as 6-minute averages.	Varies.
Performance Criteria - Data Collection Procedure	Continuous	Results of inspections and maintenance activities performed are recorded. Results of annual bag analysis are kept on-file.
Performance Criteria - Averaging Period	3-hour rolling average of visible emissions (Opacity)	n/a

(2) A three-hour rolling average opacity, except during startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12, and 14) of 12 percent or greater shall constitute an excursion.

[40 CFR 64.3(a)(2) and A.A.C. R18-2-306.A.3.b]

(3) The three-hour rolling average opacity parameter shall be equipped with an alarm.

[40 CFR 64.6(c)(1) and A.A.C. R18-2-306.A.3.b]

(4) Each three-hour rolling average opacity of 12 percent or greater, except during startup, shutdown and malfunction (defined in Condition #s I.D.8, 12, and 14), during which a fabric filter parameter alarm is activated shall constitute an excursion for the purposes of responding to and reporting excursions under 40 CFR 64.7.

[40 CFR 64.6(c)(2) and A.A.C. R18-2-306.A.3.b]

(5) Prior to making any changes to the alarm set point or alarm delay time, the Permittee shall submit written notification to the Department. Such notification shall include the proposed new alarm set point or alarm delay time and the reason for the proposed change. The proposed change may be made without the prior approval of the Department.

[40 CFR 64.6(c)(2) and A.A.C. R18-2-306.A.3.b]

(6) The Permittee shall conduct monitoring in accordance with the following provisions:

[40 CFR 64.7(c) and A.A.C. R18-2-306.A.3.b]

(a) Conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant specific emission unit (PSEU) is operating. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(b) Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable.

(7) The Permittee shall, to the extent practicable, respond to excursions as follows:

[40 CFR 64.7(d) and A.A.C. R18-2-306.A.3.b]

(a) The Permittee upon detecting an excursion or exceedance, shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The Permittee shall, to the extent practicable, minimize the period of any startup, shutdown, or malfunction (as

defined in Condition #s I.D.8, 12, and 14) and take any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup, shutdown, malfunction).

(8) For the purposes of permit deviation reporting under Condition XII of Attachment "A", the Permittee shall include the following information:

(a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken:

[40 CFR 64.9(a)(2)(i)]

(b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks).

[40 CFR 64.9(a)(2)(ii)]

c. Excess Emissions

(1) Excess emission and monitoring system performance (MSP) reports for Unit 1 and Unit 2 shall be submitted to the Department and EPA Region 9 for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information required in Condition II.C.3.c.(2). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

[40 CFR 60.45(g)]

Opacity

Excess emissions for Unit 1 and Unit 2 are defined as any six-minute period during which the average opacity of emissions exceeds 15 percent opacity except for periods of startup, shutdown, or malfunction as defined in Condition #s I.D.8, 12, and 14.

[40 CFR 60.45(g)(1)]
[Condition No. II.C.4.a (1) of Attachment "B" of Significant Revision No. 1001554 to Title V Permit No. 1000105]

(2) The summary quarterly report form submission required in Condition II.C.3.c (1) shall be in the format specified in 40 CFR 60.7(d). The excess emissions report shall include the following information:

[40 CFR 60.7(c)]

(a) The magnitude of excess emissions computed, any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during

the reporting period.

(b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions (as defined in Condition #s I.D.8, 12, and 14) of the affected facility, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(c) The date and time identifying each period during which the COMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(d) When no excess emissions have occurred, or the COMS(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(3) In addition to reports under Conditions II.C.3.c (1) and (2), the Permittee shall report emissions exceeding an emission limitation or standard in accordance with Section XII.B of Attachment "A" of this permit.

4. Testing Requirements

a. Emission Rate Calculation

(1) The emission rate (E) of particulate matter shall be calculated for each test run using the following equation:

[40 CFR 60.46 (b)(1)]

$E = C^* F_d * (20.9)/ (20.9 - \% O_2)$

Where

E = emission rate of pollutant, ng/J (1b/million Btu).

C = concentration of pollutant, ng/dscm (1b/dscf).

$\%O_2$ = oxygen concentration, percent dry basis.

F_d = factor as determined from Method 19.

(2) As an alternative to Condition II.C.4.a (1), the Permittee may follow the methodology specified in 40 CFR § 60.46(d)(1) to determine the emission rate (E) of particulate matter.

[40 CFR 60.46 (d)(1)]

b. Particulate Matter

[A.A.C.R18-2-306.A.3.c and - 312]

The Permittee shall perform an annual performance test to determine the particulate matter concentration using EPA Reference Method 5.

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with Condition XIII of Approval to Construct of December 21, 1977, 40 CFR 60.45 (a), (g). (g)(1), 60.46 (b)(1), and (c)(1).

D. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standard.

a. The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1 and Unit 2 any gases which contain SO_2 in excess of 0.690 lbs/ MMBtu derived from fossil fuel except for periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14.

[Condition XIII of Approval to Construct of December 21, 1977 and 40 CFR §60.8(c)]

b. Compliance shall be based on the total heat input from all fossil fuels burned.

[40 CFR 60.43 (c)]

c. Unless otherwise specified, the SO_2 emission limit defined in Condition II.D.1.a shall be measured by manual testing on a one-hour average (the average of three one-hour tests).

[A.A.C. R18-2-312]

d. At all times, including periods of startup, shutdown, and/or malfunction (as defined in Condition #s I.D.8, 12, and 14), the Permittee shall not cause to be discharged to the atmosphere from the stack of Unit 1 and Unit 2 any gases which contain SO_2 in excess of 0.27 lbs/ MMBtu derived from fossil fuels, based on a 12-month rolling average, averaged over Unit 1 and Unit 2.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 8]

e. At all times, except for periods of startup, shutdown, and/or malfunction (as defined in Condition #s I.D.8, 12, and 14), SO_2 emissions from Unit 1 and Unit 2 shall be limited to 15 percent or less of the potential boiler inlet SO_2 concentration (85 percent reduction) based on a 90-day rolling average, averaged over Units 1 and Unit 2.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 9]

2. Air Pollution Control Requirements

At all times when the system is in operation, including periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14, the Permittee shall, to the extent practicable, maintain *and operate the Niro dry flue gas desulfurization systems in a manner consistent with good air pollution control practice for minimizing SO_2 emissions.*

[40 CFR 60.11 (d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall calibrate*, maintain, and operate *continuous monitoring systems for measuring SO_2 emissions.*

[40 CFR 60.45 (a) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. The continuous emission monitoring systems (CEMS) for SO_2 shall meet the following requirements:

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures"

(a) Installation and measurement location

(b) Equipment specifications

(c) Performance specifications

(d) Data acquisition and handling systems

(e) Calibration gas

(f) Certifications tests and procedures

(g) Calculations

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure"

(a) Quality control program

(b) Frequency of testing

(3) Data Reduction

The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10 (d)(1).

c. The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

d. Excess Emissions

(1) Excess emission and monitoring system performance (MSP) reports for Unit 1 and Unit 2 shall be submitted to the Department and EPA Region 9 for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information required in Condition II.D.3.d (2). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

[40 CFR 60.45 (g)]

Sulfur Dioxide

Excess emissions for Unit 1 and Unit 2 are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured

by a continuous monitoring system are in excess of the applicable standard in Condition II.D.1.a.

[40 CFR 60.45 (g)(2)]

(2) The summary quarterly report form submission required in Condition II.D.3.d (1) shall be in the format specified in 40 CFR 60.7(d). The excess emissions report shall include the following information:

[40 CFR 60.7 (c)]

(a) The magnitude of excess emissions computed, any conversion factor(s) used, the date and time of commencement, completion of each time period of excess emissions, and the process operating time during the reporting period.

(b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, malfunctions (as defined in Condition #s I.D.8, 12, and 14) of the affected facility, the nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(c) The date and time identifying each period during which the CEMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(d) When no excess emissions have occurred or the CEMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(3) In addition to the reports under Conditions II.D.3.d (1) and (2), the Permittee shall report emissions exceeding an emission limitation or standard in accordance with Condition XII.B, Attachment "A".

[A.A.C. R18-2-306.A.5.b]

e. Monitoring for the Permittee's compliance with the SO_2 emission limit in Condition II.D.1.d shall be determined as follows:

(1) The Permittee shall record Hourly Average Emission Rate (As defined in Condition #s I.D.19.a and b) data for SO_2 in lbs/MMBtu for each hour of Unit operation.

(2) Each calendar month, the Permittee shall calculate a 12-month rolling average emission rate calculated as the arithmetic average of the immediately prior 12 Monthly Averages (as defined in Condition I.D.19.e), in lbs/MMBtu. This calculation shall be made available for review by the fifth working day following the end of each rolling 12-month average period.

(3) If the calculated 12-month rolling average emission rate exceeds the applicable mass emission limit set forth in Condition II.D.1.d,

the Permittee shall be in violation of such mass emission limit, and shall be deemed to have been in violation for each day in the last occurring calendar month included in the calculation of such 12-month rolling average emission rate.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 17]

(4) Unless explicitly specified elsewhere in this Permit, all average emission rates shall:

(a) Include all periods of startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12, and 14) and emergency; and

(b) Exclude the following:

(i) data for a Unit on a day that has not operated for at least one hour;

(ii) data for a Unit from periods when the Unit is not operating; and

(iii) Other inappropriate data as specified in the applicable EPA testing regulations at 40 CFR Part 60, Appendix A, and Part 75 (e.g., from periods of malfunction by the monitoring system).

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 19]

f. Monitoring for SO_2 Control Efficiency

The Permittee's compliance with the SO_2 reduction requirement in Condition II.D.2.b shall be determined as follows:

(1) The Permittee shall separately record, except for periods of startup, shutdown or malfunction (as defined in Conditions #s I.D.8, 12, or 14),

(a) Hourly Average Boiler Inlet SO_2 Concentrations (as defined in Condition I.D.20.b), and

(b) Hourly Average Stack Outlet SO_2 Concentrations (as defined in Condition I.D.20.a), for Unit 1 and Unit 2.

(2) For each Calendar Day, the Permittee shall calculate:

(a) the arithmetic average of the Hourly Average Boiler Inlet SO_2Concentrations, expressed in lbs/MMBtu, for each of Unit 1 and Unit 2 in a day (the "Combined Daily Inlet Average"), and

(b) the arithmetic average of the Hourly Average Stack Outlet SO_2Concentrations, expressed in lbs/MMBtu, for each of Unit 1 and Unit 2 in that day (the "Combined Daily Outlet

Average").

(3) For each Calendar Day, the Permittee shall calculate the daily average SO_2 reduction rate for Unit 1 and 2 as follows: (Combined Daily Inlet Average – Combined Daily Outlet Average)/ Combined Daily Inlet Average, expressed as a percentage (the "Daily Average Reduction Rate").

(4) For each Calendar Day, the Permittee shall calculate and record a 90-day rolling average Daily Average Reduction Rate calculated as the arithmetic average of the immediately prior 90 Daily Average Reduction Rates.

(5) If that average calculated above is less than the 85 percent SO_2 reduction requirement in Condition II.D.2.b, the Permittee shall be in violation of such SO_2 reduction requirement for the last occurring Calendar Day included in the calculation of such 90-day rolling average Reduction Rate.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 18]

(6) Unless explicitly specified elsewhere in this Permit, all average emission reduction efficiencies shall include all period of emergency and exclude the following:

(a) data for Unit on a day that has not operated for at least one hour;

(b) data for a Unit from periods when the Unit is not operating; and

(c) other inappropriate data as specified in the applicable EPA testing regulations at 40 CFR Part 60, Appendix A, and Part 75 (e.g., from periods of malfunction by the monitoring system).

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 19]

4. Testing Requirements

[A.A.C.R18-2-306.A.3.c & 312]

The Permittee shall perform an annual performance test to determine the sulfur dioxide concentration using EPA Reference Method 6 or 6C.

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with Condition XIII of Approval to Construct of December 21, 1977, Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 17 & 19, 40 CFR 60.43 (c), 60.45 (a), (g), and (g)(2).

E. Nitrogen Oxides (NO_x)

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1 and Unit 2 any gases which contain nitrogen oxides, expressed as NO_2 in excess of 0.697 lbs/ MMBtu derived from fossil fuel except for periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14.

[Condition XIII of Approval to Construct of December 21, 1977 and 40 CFR §60.8(c)]

b. Unless otherwise specified, the NO_x emission limit in Condition II.E.1.a shall be measured by manual testing on a one-hour average (the average of three one-hour tests).

[A.A.C. R18-2-312]

c. At all times, except for periods of major burner malfunction (as defined in Condition I.D.7 of this Attachment), the Permittee shall not cause to be discharged to the atmosphere from the Stack of Unit 1 and Unit 2 any gases which contain nitrogen oxides, expressed as NO_2, in excess of 0.22 lb/MMBtu derived from fossil fuel, based on a 12-month rolling average over Unit 1 and Unit 2. The exception for periods of operation during a major burner malfunction is applicable only if:

(1) The Permittee reports the major burner malfunction to ADEQ within two (2) business days and,

(2) Within seven (7) business days, the Permittee provides ADEQ with a compliance plan to correct the major burner malfunction as expeditiously as practicable.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 10]

2. Monitoring/Recordkeeping/Reporting Requirements

a. *The Permittee shall calibrate*, maintain, and operate *continuous monitoring systems for measuring the NO_x emissions and CO_2.*

[40 CFR 60.45 (a) and A.A.C. R18-2-331.a.3.c]
[Material Permit Conditions are defined by underline and italics]

b. The continuous emission monitoring systems for NO_x and CO_2 shall meet the following requirements:

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures"

(a) Installation and measurement location

(b) Equipment specifications

(c) Performance specifications

(d) Data acquisition and handling systems

(e) Calibration gas

(f) Certifications tests and procedures

(g) Calculations

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure"

(a) Quality control program

(b) Frequency of testing

(3) Data Reduction

The Permittee shall comply with the data reduction requirements of 40 CFR Part 75.10 (d)(1).

c. The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75 Subparts F and G respectively.

d. Excess Emissions

(1) Excess emission and monitoring system performance (MSP) reports for Unit 1 and Unit 2 shall be submitted to the Department and EPA Region 9 for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. Each excess emission and MSP report shall include the information required in Condition II.E.2.d (2). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

[40 CFR 60.45 (g)]

Nitrogen Oxides

Excess emissions for Unit 1 and Unit 2 are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of nitrogen oxides as measured by a continuous monitoring system are in excess of the applicable standard in Condition II.E.1.a..

[40 CFR 60.45 (g)(2)]

(2) The summary quarterly report form submission required in paragraph II.E.2.d (1) shall be in the format specified in 40 CFR 60.7(d). The excess emissions report shall include the following information:

[40 CFR 60.7 (c)]

(a) The magnitude of excess emissions computed, any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

(b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(c) The date and time identifying each period during which the CMS was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(d) When no excess emissions have occurred or the CMS(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(3) In addition to reports under Conditions II.E.2.d (1) and (2), the Permittee shall report emissions exceeding an emission limitation or standard in accordance with Section XII.B of Attachment "A" of this permit.

[A.A.C. R18-2-306.A.5.b]

e. Monitoring for NO_2 emission limit in Condition II.E.1.c

The Permittee's compliance with the NO_2 emission limit in Condition II.E.1.c shall be determined as follows:

(1) The Permittee shall record Hourly Average Emission Rate (as defined in Condition I.D.19.a and b) data for NO_x in lbs/MMBtu for each hour of Unit operation.

(2) The Permittee shall, for each calendar month, calculate a 12-month rolling average emission rate calculated as the arithmetic average of the immediately prior 12 Monthly Averages (as defined in Condition I.D.19.e), in lbs/MMBtu. This calculation shall be made available for review by the fifth working day following the end of each rolling 12-month average period.

(3) If the calculated 12-month rolling average emission rate exceeds the applicable mass emission limit set forth in Specific Condition II.E.1.c, the Permittee shall be in violation of such mass emission limit, and shall be deemed to have been in violation for each Day in the last occurring calendar month included in the calculation of such 12-month rolling average emission rate.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 17]

(4) Unless explicitly specified elsewhere in this Permit, all average emission rates shall include all periods of startup, shutdown, and malfunction (as defined in Condition #s. I.D.8, 12, and 14), and emergency and exclude the following:

(a) Data for Unit on a day that has not operated for at least one hour;

(b) Data for a Unit from periods when the Unit is not operating; and

(c) Other inappropriate data as specified in the applicable EPA testing regulations at 40 CFR Part 60, Appendix A, and Part 75 (e.g., from periods of malfunction by the monitoring system).

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 19]

3. Testing Requirements

[A.A.C.R18-2-306.A.3.c & -312]

The Permittee shall perform an annual performance test to determine the nitrogen oxides concentration using EPA Reference Method 7 or 7E.

[Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 14]

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with Condition XIII Approval to Construct of December 21, 1977, Consent Decree of June 24, 2005, CV01-2189 PCT EHC (D. Ariz.), § 10, 14, 17, & 19, 40 CFR 60.45 (a), (g), and (g)(2).

III. UNIT 3 AND UNIT 4 (P3 AND P4)

A. Applicability

This Section applies to Unit 3 and Unit 4 as described in Condition I.D.18 and Equipment List, Attachment "C".

B. Operating Limitations

1. Fuel Limitations

a. The Permittee shall burn only coal and No. 2 distillate oil including bio-diesel as fuel in Unit 3 and Unit 4.

[A.A.C. R18-2-306.A.2]

b. The Permittee shall not allow or permit the heat input from all fuels to exceed 4,200 million Btu per hour for Unit 3 or Unit 4. Compliance with this heat input limitation shall be based on a 30-day rolling average.

[A.A.C. R18-2-406.A.4]

c. The Permittee shall maintain the following records:

[A.A.C. R18-2-306.A.4]

(1) Date, time, types of fuels, and ranks of coal burned in each boiler unit; and

(2) 30-day rolling average of heat input in million Btu per hour from all fuels to each unit.

2. Vapor Extractor Blower Vents, Generator Seal Oil Vapor Extractor, and Hydraulic Fluid Reservoir Vapor Extractors

[A.A.C. R18-2-730.F]

The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce

effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.

3. Unit 4 Fuel Oil Storage Tank

a. The Permittee shall not emit gaseous or odorous material from equipment, operations, or premises under his control in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

b. The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730.F]

c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C. R 18-2-730.D, F, and G.

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity Standard

The Permittee shall not cause to be discharged into the atmosphere from the stack of Unit 3 or Unit 4 any gases which exhibit greater than 15 percent opacity, based on a six-minute average, except for periods of startup, shutdowns, or malfunction as defined in Condition #s I.D.8, 12, and 14.

[40 CFR 60.42 Da(b), A.A.C. R18-2-331.A.3.f, and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

b. Particulate Matter Emission Standards

(1) The Permittee shall not cause to be discharged into the atmosphere from the stack of Unit 3 or Unit 4 any gases which contain particulate matter in excess of 0.015 lbs/ MMBtu heat input

derived from combustion of fuel (excluding condensable particulate matter). Compliance with this emission limit shall be determined using a three-hour averaging period.

[A.A.C. R18-2-406.A.4]

(2) The Permittee shall not cause to be discharged into the atmosphere from the stack of Unit 3 or Unit 4 any gases which contain PM_{10} (including both filterable PM_{10} and condensable PM_{10}) in excess of 0.055 lbs/ MMBtu heat input derived from combustion of fuel. Compliance with this emission limit shall be determined using a three-hour averaging period.

[A.A.C. R18-2-406.A.4]

(3) The particulate matter emission limits in Conditions III.C.1.b(1) and (2) shall apply at all times except during periods of startup, shutdown, or malfunction as defined in Condition #s I.D.8, 12, and 14.

[A.A.C. R18-2-406.A.4]

(4) NSPS Subpart Da limit for Unit 4

[40 CFR 60.42Da (c), (d), and 60.48Da (g)(3)]

(a) The Permittee shall not cause to be discharged into the atmosphere from the stack of Unit 4 any gases which contain particulate matter in excess of either 0.14 lb/MWh gross energy output; or 0.015 lb/MMBtu heat input derived from the combustion of solid, or liquid fuel.

(b) As an alternative to meeting the above requirements for Unit 4, the Permittee may elect to not exceed 0.03 lb/MMBtu heat input derived from the combustion of solid or liquid fuel and 99.9 percent reduction. Compliance with the daily average particulate matter emission limitations is determined by calculating the arithmetic average of all hourly emission rates for particulate matter each boiler operating day, except for data obtained during startup, shutdown, and malfunction.

2. Air Pollution Control Requirements

a. *At all times when the equipment is in operation, including periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14, the Permittee shall, to the extent practicable,* maintain and *operate the fabric filter baghouses in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[40 CFR 60.11 (d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. The fabric filter baghouses shall not be bypassed, except during periods of startup or shutdown (as defined in Condition #s I.D.12 and 14) while Unit 3 or Unit 4 is/ are combusting fossil fuel.

[A.A.C. R18-2-406.A.4]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Opacity

(1) Monitoring for Opacity

(a) *The Permittee shall calibrate*, maintain, and operate *continuous monitoring systems, and shall record the output of the systems, for measuring the opacity of emissions discharged to the atmosphere from Unit 3 and Unit 4.*

[40 CFR 60.49Da (a), 75.10 (a), A.A.C. R18-2-331.A.3.c, and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

(b) The continuous opacity monitoring systems (COMS) shall meet the following data reduction requirements:

[40 CFR 60.13 (h)]

(i) The Permittee shall reduce all data from the COMS to 6-minute averages. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(ii) Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under the previous paragraph. An arithmetic or integrated average of all data may be used.

(2) NSPS Requirements for Continuous Monitoring Systems for Unit 3 and Unit 4

The COMS required by Condition III.C.3.a (1)(a), shall meet the following:

(a) Calibration requirements at 40 CFR 60.13(d).

(b) Operational requirements at 40 CFR 60.13(e).

(c) Performance Specifications at 40 CFR Part 60, Appendix B.

(d) Notification and recordkeeping requirements at 40 CFR 60.7.

(3) Acid Rain Program Requirements for Continuous Monitoring Systems

The COMS required by Condition III.C.3.a (1)(a), shall meet all applicable requirements at 40 CFR Part 75. This shall include, but shall not be limited to, the following:

(a) Hourly operating requirements at 40 CFR 75.10(d)

(b) Data reduction requirements at 40 CFR 75.10(d)(2)

(c) Certification and recertification requirements at 40 CFR 75.20.

(4) The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75, Subparts F and G, respectively.

b. Compliance Assurance Monitoring for Particulate Matter

(1) The Permittee shall maintain and continuously operate the COMS to measure visible emissions (Opacity) which is indicative of operation of the Unit 3 and Unit 4 fabric filter in a manner necessary to comply with particulate matter emission standards. The fabric filter parameters have been identified in Table 4.

[40 CFR 64.6 (c)(1), A.A.C. R18-2-306.A.3.c, and -406.A.4]

Table 4: Units 3 and Unit 4 PM CAM for Fabric Filter Baghouses

Indicators	*Indicator No. 1: Visible Emissions Opacity*
Measurement Approach	Visible Emissions (Opacity) will be measured continuously with a continuous Opacity Monitoring System (COMS) installed on each stack.
Indicator Range	Visible Emissions on a 24-hour rolling average basis not to exceed an opacity baseline level established during each performance test conducted according to Condition III.C.4.b. The value of the opacity baseline level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 5.0 percent opacity to the calculated average opacity value for all of the test runs. The value of the baseline level shall not exceed 8.0 percent. A 24-hour rolling average opacity excluding periods of facility startup, shutdown and malfunction that is greater than the established opacity baseline level triggers an alarm and constitutes an excursion. Each subsequent 24-hour rolling period during which the alarm continues for the same reason shall be considered a single excursion. An excursion from the indicator ranges does not necessarily indicate an exceedance, deviation, or violation, but is indicative of the need for investigation and possible corrective action to minimize the potential for an exceedance, deviation or violation.
Performance Criteria - Data Representativeness	Visible emissions (Opacity is measured on stack)
Performance Criteria - Operation Status	n/a
Performance Criteria - QA/QC Practices	TEP is required by the permit to meet the QA/QC requirements of 40 CFR Part 60, Appendix B, Performance Specification 1, "Specification and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources"
Performance Criteria - Monitoring Frequency	Continuous opacity monitoring with data recorded as 6-minute averages.
Performance Criteria - Data Collection Procedure	Continuous
Performance Criteria - Averaging Period	Initiate investigation and possible corrective action within 24 hours of triggering an excursion for Unit 3 or Unit 4.

(2) A twenty four-hour rolling average opacity, except during startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12,

and 14) that is greater than the established baseline opacity shall constitute an excursion.

[40 CFR 64.3 (a)(2), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(3) The twenty four-hour rolling average opacity parameter shall be equipped with an alarm.

[40 CFR 64.6 (c)(1), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(4) A twenty-four-hour average opacity excluding periods of facility startup, shutdown and malfunction (as defined in Condition #s I.D.8, 12, and 14) that is greater than the established opacity baseline level triggers an alarm and constitutes an excursion. Each subsequent 24-hour rolling period during which the alarm continues for the same reason shall be considered a single excursion under 40 CFR Part 64, § 64.7.

[40 CFR 64.6 (c)(2), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(5) Prior to making any changes to the alarm set point, the Permittee shall submit written notification to the Department. Such notification shall include the proposed new alarm set point and the reason for the proposed change. The proposed change may be made without the prior approval of the Department.

[40 CFR 64.6 (c)(2), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(6) The Permittee shall conduct monitoring in accordance with the following provisions.

[40 CFR 64.7 (c), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(a) The Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollution specific emission unit (PSEU) is operating. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

(b) Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable.

(7) The Permittee shall to the extent practicable respond to excursions as follows.

[40 CFR 64.7 (d), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(a) The Permittee upon detecting an excursion or exceedance shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The Permittee shall, to the extent practicable, minimize the period of any startup, shutdown, or malfunction and take any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup, shutdown, and malfunction conditions (as defined in Condition #s I.D.8, 12, and 14)).

(8) For the purposes of permit deviation reporting under Condition XII of Attachment "A", the Permittee shall include the following information required by 40 CFR Part 64, § 64.9(a):

[40 CFR 64.7 (d), A.A.C. R18-2-306.A.3.b, and -406.A.4]

(a) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken:

(b) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks).

c. NSPS Subpart Da Monitoring Requirements for Unit 4

(1) If the output-based emissions limitation for Unit 4 under Condition III.C.1.b(4) is used to demonstrate compliance then *the Permittee shall certify*, operate, and maintain *a continuous monitoring system for measuring particulate matter emissions*. If the input-based emission limitation for Unit 4 under Condition III.C.1.b(4) is used to demonstrate compliance then *the Permittee as an option may install, certify*, operate, and maintain *a continuous monitoring system for measuring particulate matter in lieu of Condition III.C.3.c(2).*

[40 CFR 60.49 Da (t) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

(2) The Permittee shall monitor the performance of fabric filter baghouse associated with Unit 4 by utilizing the COMS required by Condition III.C.3.a. (1)(a). In addition to the requirements of Conditions III.C.3.a. (1) and (2), the Permittee shall operate the COMS according to the following requirements:

[40 CFR 60.48 Da (o)(2),(2)(i), and (ii)]

(a) During each Unit 4 performance test conducted in accordance with Condition III.C.4.b. (1), the Permittee shall establish an opacity baseline level. The value of the opacity baseline level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 2.5 percent opacity to the calculated average

opacity value for all of the test runs. If the calculated average value plus 2.5 percent is less than 5.0 percent, then the opacity baseline level is set at 5.0 percent.
[40 CFR 60.48 Da (o)(2)(iii)]

(b) The Permittee shall evaluate the preceding 24-hour average opacity level measured by the COMS each boiler operating day excluding periods of affected facility startup, shutdown, or malfunction. If the measured 24-hour average opacity emission level is greater than the baseline opacity level determined in Condition III.C.3.c.(2)(a), the Permittee shall initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high opacity incident and take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the measured 24-hour average opacity to a level below the baseline opacity level.
[40 CFR 60.48 Da (o)(2)(iv)]

(c) The Permittee shall record the opacity measurements, calculations performed, and any corrective actions taken. The record of corrective action taken shall include the date and time during which the measured 24-hour average opacity was greater than baseline opacity level, and the date, time, and description of the corrective action.
[40 CFR 60.48 Da (o)(2)(v)]

d. NSPS Subpart Da Reporting Requirements

(1) For PM emissions, the performance test data from the performance test and from the performance evaluation of the continuous monitors (including the transmissometer) shall be submitted to the Director and the Administrator.
[40 CFR 60.51 Da (a)]

(2) For any periods for which opacity emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and Unit 3 and Unit 4 during periods of data unavailability are to be compared with operations of the control system and affected facility before and following the period of data unavailability.
[40 CFR 60.51 Da (f)]

(3) The Permittee shall submit a signed statement indicating whether:
[40 CFR 60.51 Da (h)]

(a) The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

(b) The data used to show compliance was or was not

obtained in accordance with approved methods and procedures of 40 CFR 60 and is representative of plant performance.

(c) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

(d) Compliance with the standards has or has not been achieved during the reporting period.

(4) For the purposes of the reports required under 40 CFR 60.7 and this permit, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under 40 CFR 60.42Da(b) and III.C.1.a of this permit. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Department and the Administrator each calendar quarter.

[40 CFR 60.51 Da (i)]

(5) The Permittee shall submit the written reports required under this section and 40 CFR 60 Subpart A to the Director and the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

[40 CFR 60.51 Da (j)]

(6) The Permittee may submit electronic quarterly reports for opacity in lieu of submitting the written reports required under Condition III.C.3.d (4). The format of each quarterly electronic report shall be coordinated with the Director. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the Permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 Subpart Da was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate the Director to obtain their agreement to submit reports in this alternative format.

[40 CFR 60.51Da (k)]

(7) The Permittee shall prepare and submit to the Director and the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The Permittee shall comply with the requirements in the plan. The plan must address the requirements of 40 CFR 60.49Da(s)(1) through (6).

[40 CFR 60.49 Da (s)]

4. Testing

a. Opacity

(1) The Permittee shall perform annual performance tests to determine compliance with the opacity limitations in Condition III.C.1.a.

[40 CFR 60.8 and A.A.C.R18-2-306.A.3.c]

(2) All performance tests for opacity shall be performed in accordance with 40 CFR 60.8 and 60.11.

[40 CFR 60.8]

b. Particulate Matter

(1) The Permittee shall perform annual performance tests to determine compliance with the PM/PM_{10} emission limitations in Condition #s III.C.1.b (1), b (2), and b (4).

[40 CFR 60.8 and A.A.C.R18-306.A.3.c]

(2) If the measured 24-hour average opacity for Unit 4 remains at a level greater than the opacity baseline level after 7 boiler operating days, then the Permittee shall conduct a PM performance test and establish a new opacity baseline value according to Condition III.C.3.c(2)(a). This new performance test shall be conducted within 60 days of the date that the measured 24-hour average opacity was first determined to exceed the baseline opacity level unless a waiver is granted by the Director.

[40 CFR 60.48 Da (o)(2)(vi)]

(3) All performance tests for particulate matter shall be performed in accordance with 40 CFR 60.8. EPA Reference Method 5 shall be used.

[40 CFR 60.8]

(4) All performance tests for PM_{10} shall be performed in accordance with the provisions of 40 CFR 60.8. EPA Reference Method 5 or 201 or 201A shall be used for filterable PM_{10} and EPA Reference Method 202 shall be used for condensable PM_{10}. Testing for filterable and condensable PM_{10} shall be performed concurrently. Testing for PM_{10} may be performed concurrently with testing for particulate matter.

[40 CFR 60.8]

(5) The dry basis F factor (O_2) procedures in EPA Reference Method 19 shall be used to calculate the PM and PM_{10} emission rate~~s~~.

[40 CFR 60.50 Da (b)(1) and A.A.C. R18-2-406A.4]

(6) As an alternative to the dry basis F factor (O_2) procedures in EPA Reference Method 19, the Fc CO_2 factors in EPA Reference Method 19 may be used to calculate the particulate matter and PM_{10} emission rates, subject to the stipulations of 40 CFR Part 60, Subpart D, 60.46(d)(1).

[40 CFR 60.50 Da (e)(2)]

(7) The sampling time and sample volume for each test run shall be at least 120 minutes and 60 dry standard cubic feet.

[40 CFR 60.50 Da (b)(2)(i)]

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.42Da(b), (c), & (d), 60.48Da(g)(3), (o)(2), (o)(2)(i), (o)(2)(ii), (o)(2)(iii), (o)(2)(iv), (o)(2)(v), (o)(2)(vi), 60.49Da(a), (s), (t), 60.50Da(b)(2)(i), (e)(2), 60.51Da(a), (f), (h), (i), (j),and (k).

D. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from Unit 3 stack, any gases which contain SO_2 in excess of:

(1) 520 nanograms per Joule (1.20 lbs/ MMBtu) heat input and 10 percent of the potential combustion concentration (90 percent reduction) derived from combustion of coal; or

[40 CFR §60.43 Da (a)(1)]

(2) 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 260 nanograms per Joule (0.60 lbs/ MMBtu) heat input derived from combustion of coal.

[40 CFR §60.43 Da (a)(2)]

b. The Permittee shall not cause to be discharged into the atmosphere from Unit 4 stack, any gases which contain SO_2 in excess of:

[40 CFR §60.43 Da (i)(1)]

(1) 180 ng/J (1.4 lb/MWh) gross energy output on a 30-day rolling average basis; or

(2) 5 percent of the potential combustion concentration (95 percent reduction) on a 30-day rolling average basis.

c. The SO_2 emission standard in Condition #s III.D.1.a and b shall apply at all times except during periods of startup or shutdown (as defined in Condition #s I.D.12 or 14), or periods when emergency conditions exist and the flue gas desulfurization system is malfunctioning.

[40 CFR 60.48 Da (c)]

d. Compliance with the SO_2 emission standard in Conditions III.D.1.a and b shall be based upon a 30-day rolling average.

[40 CFR 60.48 Da (e)]

2. Air Pollution Control Requirements

At all times when Unit 3 or Unit 4 is in operation, including periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14, the Permittee shall, to the extent practicable, maintain and *operate the dry flue gas*

desulfurization system in a manner consistent with good air pollution control practice for minimizing SO_2 emissions.

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Monitoring for SO_2

(1) *The Permittee shall calibrate*, maintain, and operate *continuous emission monitoring systems (CEMS), and record the output of the system, for measuring SO_2 emissions from Unit 3 and Unit 4. The monitoring systems shall measure SO_2 emissions at both the inlet and outlet of the SO_2 control device.*

[40 CFR 60.49 Da (b), 75.10 (a), and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

(2) As an alternative to the continuous SO_2 emission monitoring system at the SO_2 control device inlet in Condition III.D.3.a(1), an "as-fired" fuel monitoring system (upstream of the coal pulverizers) meeting the requirements of EPA Reference Method 19 may be used to determine potential SO_2emissions.

[40 CFR 60.49 Da (b)(3)]

(3) The CEMS used to measure SO_2 emissions at the outlet of the SO_2 control devices shall meet the applicable citing requirements of 40 CFR Part 60, Appendix B, and 40 CFR Part 75, Appendix A.

b. Compliance Determination Requirements for NSPS SO_2 Emission Standard

For the purposes of demonstrating compliance with the SO_2 emission limitation in Condition III.D.1.a and b, the Permittee shall meet the following requirements:

(1) Emission data from the continuous flow monitoring system, diluent CO_2 or O_2 monitoring systems, and SO_2 emission monitoring systems, required by Conditions III.J.1, III.J.2, and III.D.3.a(1), shall be used to demonstrate compliance.

[40 CFR 60.50 Da (c)(5)]

(2) For Unit 3, the Permittee shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. For Unit 4, the Permittee shall obtain SO_2 emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, the Permittee shall supplement the emission data in accordance with the following:

[40 CFR 60.49 Da (f)]

(a) Data obtained from other monitoring systems approved by the Director, or

(b) For supplementary SO_2 concentration data, data obtained

from EPA Reference Method 6 or 6A or 6B or 6C, in accordance with the provisions of 40 CFR 60.49Da (h).

(c) For supplementary diluent CO_2 or O_2 concentration data, data obtained from EPA Reference Method 3 or 3A or 3B, in accordance with the provisions of 40 CFR 60.49Da (h).

(3) Compliance with the SO_2 emission limitations and percentage reduction requirements under Condition III.D.1.a and b is based on the average emission rate for 30 successive operating days for Unit 3 and Unit 4. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate and percent reduction is calculated to show compliance with the standards. Compliance with the applicable 30-day rolling average SO_2 emission limitation for Unit 3 and Unit 4 is determined by calculating the arithmetic average of all hourly SO_2 emission rates for the 30 successive operating days, except for data obtained during startup, shutdown, or emergency conditions. Compliance with the percentage reduction requirement is determined based on the average inlet and outlet sulfur dioxide emission rates for the 30 successive operating days.

[40 CFR 60.48 Da (e) and (g)]

c. NSPS Requirements for CEMS

The CEMS for SO_2 emissions as required by Condition III.D.3.a shall meet the following requirements:

(1) Calibration requirements at 40 CFR 60.13(d)

(2) Operational requirements at 40 CFR 60.13(e)

(3) Performance Specifications at 40 CFR Part 60, Appendix B

(4) Quality Assurance Procedures at 40 CFR Part 60, Appendix F

(5) Notification and recordkeeping requirements at 40 CFR 60.7

d. Acid Rain Program Requirements for Continuous Monitoring Systems
The CEMS for SO_2 emissions as required by Condition III.D.3.a shall meet all applicable requirements of 40 CFR Part 75. This shall include, but shall not be limited to, the following requirements:

(1) 40 CFR Part 75, Appendix A, “Specification and Test Procedures”.

(2) 40 CFR Part 75, Appendix B, “Quality Assurance and Quality Control Procedure”.

(3) Equipment performance requirements at 40 CFR 75.10(b).

(4) Hourly operating requirements at 40 CFR 75.10(d).

(5) Data reduction requirements at 40 CFR 75.10(d)(1).

(6) Missing data substitution requirements at 40 CFR 75.10(d)(3) and 40 CFR Part 75, Subpart D.

(7) Certification and recertification requirements at 40 CFR 75.20.

e. The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75, Subparts F and G, respectively.

f. NSPS Subpart Da Reporting Requirements

(1) For SO_2, the performance test data from the performance test and from the performance evaluation of the continuous monitors are submitted to the Director and the Administrator.

[40 CFR 60.51 Da (a)]

(2) For SO_2, the following is reported to the Director and the Administrator for each 24-hour period.

[40 CFR 60.51 Da (b)]

(a) Calendar date

(b) The average SO_2 emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

(c) For complying with the percent reduction requirement, percent reduction of the potential reduction combustion concentration of SO_2 for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

(d) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.

(e) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown (as defined in Condition #s I.D.12 and 14), and emergency conditions, or other reasons, and justification for excluding data for reasons other than startup, shutdown, or emergency conditions.

(f) Identification of “F” factor used for calculations, method of determination, and type of fuel combusted.

(g) Identification of times when hourly averages have been

obtained based on manual sampling methods.

(h) Identification of the times when the pollutant concentration exceeded full span of the CMS.

(i) Description of any modifications to the CMS which could affect the ability of the CMS to comply with Performance Specifications 2 or 3.

(3) If the minimum quantity of emission data as required by Condition §60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 60.48Da(h) is reported to the Director and the Administrator for that 30 day period:

[40 CFR 60.51Da (c)]

(a) The number of hourly averages available for outlet emission rates (no) and inlet emission rates (ni)

(b) The standard deviation of hourly averages for outlet emission rates (so) and inlet emission rates (si) as applicable.

(c) The lower confidence limit for the mean outlet emission rate (Eo*) and the upper confidence limit for the mean inlet emission rate (Ei*) as applicable.

(d) The applicable combustion concentration.

(e) The ratio of the upper confidence limit for the mean outlet emission rate (Eo*) and the allowable emission rate (Estd) as applicable.

(4) If the SO_2 emission standard in Condition III.D.1.a is exceeded during emergency conditions because of control system malfunction, the Permittee shall submit a signed statement:

[40 CFR 60.51 Da (d)]

(a) Indicating if emergency conditions existed and requirements under 60.48Da(d) were met during each period, and

(b) Listing the following information:

(i) Time periods the emergency condition existed;

(ii) Electrical output and demand on the Permittee's electric utility system and the affected facility.

(iii) Amount of power purchased from interconnected neighboring utility companies during the emergency period;

(iv) Percent reduction in emissions achieved;

(v) Atmospheric emission rate (ng/J) of the pollutant discharged; and

(vi) Actions taken to correct control system malfunction.

(5) If fuel pretreatment credit toward the SO_2 emission standard in Condition III.D.1.a is claimed, the Permittee shall submit a signed statement:

[40 CFR 60.51 Da (e)]

(a) Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of 40 CFR 60.50Da and Method 19 (Appendix A of 40 CFR 60) ; and

(b) Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.

(6) For any periods for which SO_2 emission data is not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and Unit 3 and 4 during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

[40 CFR 60.51 Da (f)]

(7) The Permittee shall submit a signed statement indicating whether:

[40 CFR 60.51 Da (h)]

(a) The required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

(b) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of 40 CFR 60 and is representative of plant performance.

(c) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

(d) Compliance with the standards has or has not been achieved during the reporting period.

(8) The Permittee shall submit the written reports required under this section and 40 CFR 60 Subpart A to the Director and the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

[40 CFR 60.51 Da (j)]

(9) The Permittee may submit electronic quarterly reports for SO_2 in lieu of submitting the written reports required under Condition III.D.3.(f)(2). The format of each quarterly electronic report shall be coordinated with the permitting authority (ADEQ). The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the Permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 Subpart Da was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate with the Director to obtain their agreement to submit reports in this alternative format.

[40 CFR 60.51 Da (k)]

(10) The Permittee shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The Permittee shall comply with the requirements in your plan. The plan must address the requirements of 40 CFR 60.49Da(s)(1) through (6).

[40 CFR 60.49 Da (s)]

4. Testing

a. The Permittee shall perform performance tests to determine compliance with the SO_2 emission limitation in Condition III.D.1.a. These performance tests shall be performed in accordance with 40 CFR 60.8.

[40 CFR 60.8 and A.A.C. R18-2-306.A.3.a]

b. Data from the CEMS for exhaust gas flow as required by Condition III.J.1, diluent concentration as required by Condition III.J.2, and SO_2 emissions as required by Condition III.D.3.a shall be used during the performance tests to demonstrate compliance.

[40 CFR 60.50 Da (c)(5)]

c. The appropriate procedures in EPA Reference Method 19 shall be used to determine the SO_2 emission rate and the percent reduction achieved by the SO_2 emission control system.

[40 CFR 60.50 Da (c)(3) and (c)(4)]

d. As an alternative to the procedures in Condition III.D.4.b, a combination of an "as-fired" fuel monitor and emission rates measured after the SO_2 emission control system, following the procedures in EPA Reference Method 19, may be used if the percent reduction is calculated using the average emission rate from the SO_2 emission control system and the average SO_2 input rate from the "as-fired" fuel analysis for 30 successive

boiler operating days.

[40 CFR 60.50 Da (c)(3)]

e. Compliance is based on the average emission rate for 30 successive operating days for each Unit 3 and Unit 4. Compliance is determined by calculating the arithmetic average of all hourly SO_2 emission rates for the 30 successive operating days, except for data obtained during startup, shutdown, or malfunction.

[40 CFR 60.48Da(g)]

f. The percent of potential SO_2 emissions (%Ps) shall be computed using the equation set forth at 40 CFR 60.50Da(c)(1).

[40 CFR 60.50 Da (c)(1)]

g. During each performance test for Unit 3, the Permittee shall obtain emission data from each of the continuous SO_2 and CO_2 emission monitoring systems for at least 18 hours in at least 22 out of 30 successive operating days. If this minimum data requirement is not met with a continuous monitoring system, the Director may use the procedures in EPA Reference Method 19, Section 12.7, to determine compliance.

[40 CFR 60.49 Da (f)(1) and (h)]

h. During each performance test for Unit 4, the Permittee shall obtain emission data from each of the continuous SO_2 and CO_2 emission monitoring systems for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement is not met with a CEMS, the Director may use the procedures in EPA Reference Method 19, Section 12.7, to determine compliance.

[40 CFR 60.49 Da (f)(2) and (h)]

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.43Da (a)(1), (2), & (i)(1), 60.48 Da (c), (e), & (g), 60.49 Da (b), (b)(3), (f), (f)(1), & (h), 60.50 Da(c)(1), (3), (4), & (5), 60.51Da (a), (b), (c), (d), (e), (f), (h), (j), (k), and (s).

E. Nitrogen Oxides (NO_x)

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from Unit 3 stack, any gases which contain NO_x (expressed as nitrogen dioxide) in excess of 200 nanograms per joule (1.6 lbs/MWh) gross energy output, based on a 30-day rolling average.

[40 CFR 60.44 Da (d)(1)]

b. The Permittee shall not cause to be discharged into the atmosphere from Unit 4 stack, any gases which contain NO_x (expressed as nitrogen dioxide) in excess of 130 nanograms per joule (1.0 lbs/MWh) gross energy output, based on a 30-day rolling average.

[40 CFR 60.44 Da (e)(1)]

c. The NO_x emission standard in Conditions III.E.1.a and b shall apply at all times except during periods of startup, shutdown, or malfunction (as defined in Condition #s I.D.8, 12, and 14).

[40 CFR 60.48 Da (c)]

2. Air Pollution Control Requirements

At all times when Unit 3 or Unit 4 is in operation, including periods of startup, shutdown, and malfunction as defined in Condition #s I.D.8, 12, and 14, the Permittee shall, to the extent practicable, maintain and *operate the SCR system in a manner consistent with good air pollution control practice for minimizing NO_x emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Monitoring for NO_x

(1) *The Permittee shall calibrate*, maintain, and operate *continuous monitoring systems, and record the output of the systems, for measuring NO_x emissions discharged to the atmosphere from Unit 3 and Unit 4.*

[40 CFR 60.49 Da (c)(1), 75.10(a), and A.A.C. R18-2-331.a.3.c]
[Material Permit Conditions are defined by underline and italics]

(2) The continuous monitoring system used to meet the requirements of 40 CFR Part 75 may be used to meet the requirements of 40 CFR Part 60, Subpart Da, §60.49Da(c)(1). The Permittee shall meet the requirements of 40 CFR 60.50Da. Data reported to meet the requirements of 40 CFR 60.50Da shall not include data substituted using the missing data procedures in Subpart D of 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

[40 CFR 60.49 Da (c)(2)]

b. Compliance Determination Requirements for NSPS NO_x Emission Standard

For the purposes of demonstrating compliance with the NO_x emission limitation in Condition III.E.1.a, the Permittee shall meet the following requirements:

(1) Emission data from the continuous flow monitoring systems, wattmeters, and continuous NO_x emission monitoring systems required by Conditions III.J.1, III.J.4, and III.E.3.a respectively, shall be used to demonstrate compliance.

[40 CFR 60.50 Da (d)(2)]

(2) For Unit 3, the Permittee shall obtain emission data from the continuous NO_x emission monitoring systems for at least 18 hours in at least 22 out of each 30 successive operating days.

[40 CFR 60.49 Da (f)(1)]

(3) For Unit 4, the Permittee shall obtain NO_x emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days.

[40 CFR 60.49 Da (f)(2)]

(4) If this minimum data requirement cannot be met with a continuous monitoring system, the Permittee shall supplement the emission data in accordance with the following:

[40 CFR 60.49 Da (f)]

(a) Data obtained from other monitoring systems approved by the Director, or

(b) For supplementary NO_x concentration data, data obtained from EPA Reference Method 7 or 7A or 7C or 7E, in accordance with the provisions of 40 CFR 60. 49Da (h).

(5) The NO_x emission rate shall be calculated by multiplying the average hourly NO_x output concentration by the average hourly flow rate and divided by the average hourly gross electrical output.

[40 CFR 60.48 Da (i)]

(6) Compliance with the NO_x emission limitation under Condition III.E.1.a and b is based on the average emission rate for 30 successive operating days for Unit 3 and Unit 4. Compliance is determined by calculating the arithmetic average of all hourly NO_x emission rates for the 30 successive operating days, except for data obtained during startup, shutdown, or malfunction (as defined in Condition #s I.D.8, 12, and 14). A separate performance test is completed at the end of each operating day and a new 30-day average nitrogen oxides emission rate is calculated to show compliance with the emission standard.

[40 CFR 60.48 Da (e) and (g)]

c. NSPS Requirements for Continuous Monitoring Systems

The continuous monitoring systems for NO_x emissions as required by Condition III.E.3.a (except as provided by Condition III.E.3.a.(2)) shall meet the following requirements:

(1) Calibration requirements at 40 CFR 60.13(d)

(2) Operational requirements at 40 CFR 60.13(e)

(3) Performance Specifications at 40 CFR Part 60, Appendix B

(4) Quality Assurance Procedures at 40 CFR Part 60, Appendix F

(5) Notification and recordkeeping requirements at 40 CFR 60.7.

d. Acid Rain Program Requirements for Continuous Monitoring Systems

The continuous monitoring systems for NO_x emissions as required by

Condition III.E.3.a shall meet all applicable requirements at 40 CFR Part 75. This shall include, but shall not be limited to, the following requirements:

(1) 40 CFR Part 75, Appendix A, "Specification and Test Procedures".

(2) 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure".

(3) Equipment performance requirements at 40 CFR 75.10(b).

(4) Hourly operating requirements at 40 CFR 75.10(d).

(5) Data reduction requirements at 40 CFR 75.10(d)(1).

(6) Missing data substitution requirements at 40 CFR 75.10(d)(3) and 40 CFR Part 75, Subpart D.

(7) Certification and recertification requirements at 40 CFR 75.20.

e. The Permittee shall comply with all applicable recordkeeping and reporting requirements of 40 CFR Part 75, Subparts F and G, respectively.

f. NSPS Reporting Requirements

(1) The performance test data from the performance evaluation of the continuous monitors are submitted to the Director and the Administrator.

[40 CFR 60.51Da (a)]

(2) The following information is reported to the Director and the Administrator for each 24-hour period.

[40 CFR 60.51 Da (b)]

(a) Calendar date

(b) The average NO_x emission rates (ng/J or lb/million Btu) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

(c) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.

(d) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction, or other reasons, and justification for excluding data for reasons

other than startup, shutdown, malfunction (as defined in Condition #s I.D.8, 12, and 14), or emergency conditions.

(e) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(f) Identification of times when hourly averages have been obtained based on manual sampling methods.

(g) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(h) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

(3) If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of §60.48a(h) is reported to the Department and the Administrator for that 30 day period:

[40 CFR 60.51 Da (c)]

(a) The number of hourly averages available for outlet emission rates (no) and inlet emission rates (ni)

(b) The standard deviation of hourly averages for outlet emission rates (so) and inlet emission rates (si) as applicable.

(c) The lower confidence limit for the mean outlet emission rate (Eo*) and the upper confidence limit for the mean inlet emission rate (Ei*) as applicable.

(d) The applicable combustion concentration.

(e) The ratio of the upper confidence limit for the mean outlet emission rate (Eo*) and the allowable emission rate (Estd) as applicable.

(4) For any periods for which NO_x emissions data is not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and Unit 3 and 4 during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

[40 CFR 60.51 Da (f)]

(5) The Permittee shall submit a signed statement indicating whether:

[40 CFR 60.51 Da (h)]

(a) The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

(b) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of 40 CFR 60Da and is representative of plant performance.

(c) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

(d) Compliance with the standards has or has not been achieved during the reporting period.

(6) The Permittee shall submit the written reports required under this section and 40 CFR 60 Subpart A to the Director and the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

[40 CFR 60.51 Da (j)]

(7) The Permittee may submit electronic quarterly reports for NO_x in lieu of submitting the written reports required under Condition III.E.3.(f)(2). The format of each quarterly electronic report shall be coordinated with the Director. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the Permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 Subpart Da was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate with the Director to obtain their agreement to submit reports in this alternative format.

[40 CFR 60.51 Da (k)]

(8) The Permittee shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The owner or operator shall comply with the requirements in your plan. The plan must address the requirements of 40 CFR 60.49Da(s)(1) through (6).

[40 CFR 60.49 Da (s)]

4. Testing

a. The Permittee shall perform performance tests to determine compliance with the NO_x emission limitation in Condition III.E.1.a and b. These performance tests shall be performed in accordance with 40 CFR 60.8.

[40 CFR 60.8 and A.A.C. R18-2-306.A.3.a]

b. Data from the CEMS for exhaust gas flow as required by Condition III.J.1,

wattmeters as required by Condition III.J.4, and NO_x emissions as required by Condition III.E.3.a shall be used during the performance tests to demonstrate compliance.

[40 CFR 60.50 Da (d)(2)]

c. The NO_x emission rate shall be calculated by multiplying the average hourly NO_x output concentration by the average hourly flow rate and divided by the average hourly gross electrical output.

[40 CFR 60.48 Da (i)]

d. Compliance is based on the average emission rate for 30 successive operating days for each Unit 3 and Unit 4. Compliance is determined by calculating the arithmetic average of all hourly NO_x emission rates for the 30 successive operating days, except for data obtained during startup, shutdown, or malfunction.

[40 CFR 60.48 Da (g)]

e. During each performance test, for Unit 3, the Permittee shall obtain emission data from the continuous NO_x emission monitoring system for at least 18 hours in at least 22 out of 30 successive operating days. For Unit 4, the Permittee shall obtain emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement is not met with a continuous monitoring system, the Director may use the procedures in EPA Reference Method 19, Section 12.7, to determine compliance.

[40 CFR 60.49 Da (f) and (h)]

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.44Da (d)(1) & (e)(1), 60.48 Da (c), (e), (g), & (i), 60.49 Da (c)(1) & (2), (e), (f), (f)(1), (2), (h), & (s), 60.50 Da (d)(2), 60.51 Da (a), (b), (c), (f), (h), (j), and (k).

F. Carbon Monoxide (CO)

1. Emission Limitations/Standard

a. The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 3 or Unit 4 any gases which contain CO in excess of 0.15 lb lbs/MMBtu heat input derived from combustion of fuel, based on a 30-day rolling average.

[A.A.C. R18-2-406.A.4]

b. The CO emission standard in Condition III.F.1.a shall apply at all times except during periods of startup, shutdown, or malfunction (as defined in Condition #s I.D.8, 12, and 14).

[A.A.C. R18-2-406.A.4]

2. Monitoring/Recordkeeping/Reporting Requirements

a. Monitoring for CO

(1) *The Permittee shall, calibrate*, maintain, and operate *CEMS, and record the output of the systems, for measuring CO emissions discharged to the atmosphere from Unit 3 and Unit 4.*

[A.A.C. R18-2-331.A.3.c and -306.A.3.c]
[Material Permit Conditions are defined by underline and italics]

(2) *The CEMS for CO shall meet the following requirements:*

[A.A.C. R18-2-331.A.3.c and -306.A.3.c]
[Material Permit Conditions are defined by underline and italics]

(a) *Calibration requirements at 40 CFR 60.13(d).*

(b) Operational requirements at 40 CFR 60.13(e).

(c) Performance Specifications at 40 CFR Part 60, Appendix B.

(d) *Quality Assurance Procedures at 40 CFR Part 60, Appendix F.*

b. Compliance Determination Requirements for CO Emission Standard

The Permittee shall use the following procedures to demonstrate compliance with the CO emission limitation in Condition III.F.1.a.

[A.A.C. R18-2-306.A.3.c]

(1) The Permittee shall use data from the continuous flow monitoring system, diluent CO_2 or O_2 monitoring systems, and CO emission monitoring systems as required by Conditions III.J.1, III.J.2, and III.F.2.a respectively.

(2) The requirements of Condition III.F.2.b shall apply separately to Unit 3 and Unit 4.

(3) Compliance with the CO emission limitation under Condition III.F.1.a is based on the average emission rate for 30 successive calendar days for Unit 3 and Unit 4. Compliance is determined by calculating the arithmetic average of all hourly CO emission rates for the 30 successive calendar days, except for data obtained during startup, shutdown (as defined in Condition #s I.D.8, and 12), or emergency conditions. A separate performance test is completed at the end of each calendar day, and a new 30-day average CO_2 emission rate is calculated to show compliance with the emission standard.

(4) Each calendar day, for which the 30-day rolling average CO emission rate exceeds the CO emission limitation in Condition III.F.1.a, shall constitute a period of excess emissions.

(5) For each continuous monitoring system for CO, the Permittee shall submit a Quality Assurance/Quality Control Plan to the Director at least 30 days prior to the start-up of the monitoring system. When approved by the Director, this plan shall be

implemented.

3. Testing

a. The Permittee shall perform annual performance tests to determine compliance with the CO emission limitation in Condition III.F.1.a.
[A.A.C. R18-2-406.A.4]

b. Data from the continuous monitoring systems for exhaust gas flow as required by Condition III.J.1, diluent concentration as required by Condition III.J.3, and CO emissions as required by Condition III.F.2.a shall be used during the performance tests to demonstrate compliance.
[A.A.C. R18-2-406.A.4]

c. The appropriate procedures in EPA Reference Method 19 shall be used to determine the CO emission rate. As Method 19 does not provide conversion factors for CO, a conversion factor of $7.27x10^{-8}$ shall be used to convert parts per million (ppm) to pounds per standard cubic foot (lb/scf).
[A.A.C. R18-2-406.A.4]

G. Volatile Organic Compounds (VOC)

1. Emission Limitations/Standards

a. The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 3 or Unit 4 any gases which contains VOCs, expressed as propane, in excess of 0.06 lbs/ ton of coal combusted. Compliance with this emission limit shall be determined using a three-hour averaging period.
[A.A.C. R18-2-406.A.4]

b. The VOCs emission standard in Condition III.G.1.a shall apply at all times except during periods of startup, shutdown, or malfunction (Condition #s I.D.8, 12, and 14).
[A.A.C. R18-2-406.A.4]

2. Testing

a. The Permittee shall perform performance tests, within 12 months of issuance of this permit, to determine compliance with the VOC emission limitation in Condition III.G.1.a.
[A.A.C. R18-2-306.A.3.c]

b. If the results of any performance test show that the VOC emissions are less than 50 percent of the specified emission limitation in Condition III.G.1.a, no additional testing shall be required for that steam generating unit during the term of this permit. If the results of the performance test show that the VOC emissions are greater than or equal to 50 percent of the specified emission limitation in Condition III.G.1.a, annual testing shall be required for that steam generating unit.

c. The performance test for VOCs shall be performed using EPA Reference Method 18 or 25A. [A.A.C. R18-2-406.A.4]

H. Hydrogen Fluoride (HF)

1. Emission Limitations/Standards

[A.A.C. R18-2-302.D and -406.A.4]

a. The Permittee shall not cause to be discharged into the atmosphere from the stack of Unit 3 or Unit 4 any gases which contain HF in excess of 0.00044 lb per million Btu heat input derived from combustion of fuel. Compliance with this emission limit shall be determined using a three-hour averaging period.

b. The HF emission standard in Condition III.H.1.a shall apply at all times except during periods of startup, shutdown, or malfunction (as defined in Condition #s I.D.8, 12, and 14).

2. Testing

[A.A.C. R18-2-302.D, -312, and 406.A.4]

a. The Permittee shall perform performance tests, within 12 months of issuance of this permit, to determine compliance with the HF emission limitation in Condition III.H.1.a.

b. If the results of any performance test show that the HF emissions are less than 50 percent of the specified emission limitation in Condition III.H.1.a, no additional testing shall be required for that steam generating unit during the term of this permit. If the results of the performance test show that the HF emissions are greater than or equal to 50 percent of the specified emission limitation in Condition III.H.1.a, annual testing shall be required for that steam generating unit.

c. The performance test for HF shall be performed using EPA Reference Method 26A.

I. Lead (Pb)

1. Emission Limitations/Standards

The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 3 or Unit 4 any gases which contain Pb in excess of 0.000016 lbs/ MMBtu heat input derived from combustion of fuel. Compliance with this emission limit shall be determined using a three-hour averaging period.

[A.A.C. R18-2-306.02]

2. Testing

a. The Permittee shall perform performance tests, within 12 months of issuance of this permit, to determine compliance with the Pb emission limitation in Condition III.I.1.a.

b. If the results of any performance test show that the Pb emissions are less than 50 percent of the specified emission limitation in Condition III.I.1.a, no additional testing shall be required for that steam generating unit during the term of this permit. If the results of the performance test show that the

Pb emissions are greater than or equal to 50 percent of the specified emission limitation in Condition III.I.1.a, annual testing shall be required for that steam generating unit.

c. Each performance test for lead shall be performed using EPA Reference Method 12 or 29.

[A.A.C. R18-2-306.A.2]

J. Additional Monitoring, Recordkeeping, and Reporting Requirements

1. Monitoring of Flow

a. *The Permittee shall certify*, maintain, and operate *continuous flow monitoring systems, and record the output of the systems, for measuring the flow of exhaust gases discharged to the atmosphere from Unit 3 and Unit 4.*

[40 CFR 60.49 Da (a)(l), 75.10(a), and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. Data from continuous flow monitoring systems certified according to the requirements of 40 CFR 75.20, meeting the applicable quality control and quality assurance requirements of 40 CFR 75.21, and validated according to 40 CFR 75.23, may be used to satisfy the requirements of 40 CFR 60.49Da(l).

[40 CFR 60.49 Da (m)]

2. Monitoring for CO_2

The Permittee shall, calibrate, maintain, and operate *a continuous monitoring system, and record the output of the system, for measuring CO_2 emissions discharged to the atmosphere from Unit 3 and Unit 4.*

[40 CFR 75.10(a) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring for Diluent Concentration

a. *The Permittee shall, calibrate*, maintain, and operate *continuous monitoring systems, and record the output of the systems, for measuring diluent CO_2 or O_2 concentration in the exhaust gas streams from Unit 3 and Unit 4*. The monitoring systems shall measure CO_2 or O_2 concentration at both the inlet and outlet of the SO_2 control device unless the Permittee elects to monitor for inlet SO_2 using the alternative method described in Condition III.D.3.a.(2).

[40 CFR 60.49 Da (d) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

b. The CO_2 continuous monitoring system required by Condition III.J.2 may be used to satisfy the requirement for monitoring of diluent concentration at the outlet of the SO_2 control device, provided that it meets the applicable siting requirements of 40 CFR Part 60, Appendix B.

[40 CFR 60.49 Da (d)]

4. Monitoring of Electrical Output

The Permittee shall calibrate, maintain, and operate *the wattmeters, utilize the wattmeters to measure the gross electrical output in megawatt-hours from Unit 3 and Unit 4 on a continuous basis, and record the output of the wattmeters.*

[40 CFR 60.49 Da (k) and A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are defined by underline and italics]

5. Measurement of Heat Input

The Permittee shall determine and record the heat input to Unit 3 and Unit 4 for every hour or part of an hour any fuel is combusted following the procedures in 40 CFR Part 75, Appendix F.

[40 CFR 60.49 Da (d) and 75.10(a)]

6. NSPS Requirements for Continuous Monitoring Systems

The continuous monitoring systems for exhaust gas flow required by Condition III.J.1 (except as provided by Condition III.J.1.b) and diluent concentration required by Condition III.J.3 shall meet the following requirements:

a. Calibration requirements at 40 CFR 60.13(d)

b. Operational requirements at 40 CFR 60.13(e)

c. Performance Specifications at 40 CFR Part 60, Appendix B

d. Quality Assurance Procedures at 40 CFR Part 60, Appendix F

7. Acid Rain Program Requirements for Continuous Monitoring Systems

The continuous monitoring systems for exhaust gas flow required by Condition III.J.1 and CO_2 emissions required by Condition III.J.2 shall meet all applicable requirements at 40 CFR Part 75. This shall include, but not be limited to, the following requirements:

a. 40 CFR Part 75, Appendix A, "Specification and Test Procedures."

b. 40 CFR Part 75, Appendix B, "Quality Assurance and Quality Control Procedure."

c. Equipment performance requirements at 40 CFR 75.10(b).

d. Hourly operating requirements at 40 CFR 75.10(d).

e. Data reduction requirements at 40 CFR 75.10(d)(1).

f. Missing data substitution requirements at 40 CFR 75.10(d)(3) and 40 CFR Part 75, Subpart D.

g. Certification and recertification requirements at 40 CFR 75.20.

8. The Permittee shall comply with all applicable recordkeeping and reporting

requirements of 40 CFR Part 75, Subparts F and G, respectively.

9. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 60.49 Da (a)(1), (d), (k), and (m).

IV. UNIT 1, UNIT 2, UNIT 3, AND UNIT 4 (P1, P2, P3, AND P4) - COMBINED LIMITS AND MERCURY STANDARDS

A. Applicability

This Section applies to Unit 1, Unit 2, Unit 3, and Unit 4 as described in Conditions I.D.17, and 18, and Equipment List, Attachment "C".

B. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standards

[A.A.C. R18-2-406.H and 40 CFR 70.8(c)(4)]

a. The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1, Unit 2, Unit 3, and Unit 4, in total, any gases which contain SO_2 in excess of 8,448 lbs/ hour. Compliance with this emission limit shall be determined on a rolling 3-hour average basis.

b. Total emissions of SO_2 from Unit 1, Unit 2, Unit 3, and Unit 4 shall not exceed 10,800 tons/ year.

c. Compliance with the emission limit in Condition IV.B.1.b shall be determined on both a calendar-year total and a 12-month rolling total basis.

2. Monitoring/Recordkeeping/Reporting Requirements

a. The Permittee shall use the following procedure to demonstrate compliance with the hourly SO_2 emission limitation in Condition IV.B.1.a:

[A.A.C. R18-2-306.A.3.c]

(1) The Permittee shall use the data from the continuous SO_2 emission monitoring systems for Unit 1 and Unit 2 as required by Condition II.D.3, the continuous flow monitoring systems for Unit 1 and Unit 2 as required by 40 CFR Part 75, and the flow monitoring systems and continuous SO_2 emission monitoring systems for Unit 3 and Unit 4 as required by Conditions III.D.3.a and III.J.1 respectively.

(2) For each one-hour period, the Permittee shall record the hourly mass emissions (in lbs) for each steam generating unit that operated during the hour.

(3) For each one-hour period, the Permittee shall calculate and record the three-hour average mass emission rate for each steam

generating unit that operated during the hour. The three-hour average mass emission rate shall be calculated as the sum of the mass emissions for the subject hour, plus the mass emissions for the two preceding hours, divided by three. The three-hour average mass emission rate shall be expressed in lbs per hour.

(4) For each one-hour period, the Permittee shall calculate and record the combined three-hour average mass emission rate for Unit 1, Unit 2, Unit 3, and Unit 4. The combined three-hour average mass emission rate shall be calculated as the sum of the three-hour average mass emission rates for all steam generating units that operated during the three-hour period. The combined three-hour average mass emission rate shall be expressed in lbs per hour.

(5) Each one-hour period for which the combined three-hour average mass emission rate calculated in Condition IV.B.2.a(4) exceeds the SO_2 emission limitation in Condition IV.B.1.a shall constitute a period of excess emissions.

b. The Permittee shall use the following procedure to demonstrate compliance with the yearly SO_2 emission limitations in Condition IV.B.1.b.

[A.A.C. R18-2-304.E.9]

(1) For each calendar month, the Permittee shall calculate and record the monthly mass emissions for each steam generating unit that operated during the calendar month. The monthly mass emissions shall be calculated as the sum of all hourly mass emissions recorded during the month pursuant to Condition IV.B.2.a(2) and shall be expressed in tons.

(2) For each calendar month, the Permittee shall calculate and record the combined monthly mass emissions for Unit 1, Unit 2, Unit 3, and Unit 4. The combined monthly mass emissions shall be calculated as the sum of the monthly mass emissions for all steam generating units that operated during the calendar month. The combined monthly mass emissions shall be expressed in tons.

(3) For each calendar month, the Permittee shall calculate and record the combined annual mass emissions for Unit 1, Unit 2, Unit 3, and Unit 4. The combined annual mass emissions shall be calculated as the sum of the combined monthly mass emissions for the subject month, plus the combined monthly mass emissions for the eleven preceding months. The combined annual mass emissions shall be expressed in tons.

(4) The data recorded under Conditions III.B.2.b (1) to (3) shall be available for inspection by the 5^{th} working day of the month following the month for which the calculation is being made.

(5) For each continuous monitoring system for SO_2 emissions, the Permittee shall submit a Quality Assurance/ Quality Control Plan to the Director and the Administrator at least 30 days prior to the

start-up of the monitoring system. Each Plan shall include procedures for dealing with data gaps using the procedures contained in 40 CFR Part 75, Subpart D. When approved by the Director, this plan shall be implemented.

(6) Combined mass emissions that exceed the rolling 12-month SO_2 emission limitation in Condition IV.B.1.b shall constitute a violation for each day of the preceding month for each electric generating unit in operation on that day.

(7) Combined mass emissions that exceed the calendar-year sulfur dioxide emission limitation in Condition IV.B.1.b shall constitute a violation for each day of the preceding calendar year for each electric generating unit in operation on that day.

(8) A violation under Conditions IV.B.2.b (6) and (7) that occurs on the same day at the same unit shall count as a single violation.

C. Nitrogen Oxides (NO_x)

1. Emission Limitations/Standards

[A.A.C. R18-2-406.H and 40 CFR 70.8(c)(4)]

a. Total emission of NO_x from Unit 1, Unit 2, Unit 3, and Unit 4 shall not exceed 9,600 tons/ year.

b. Compliance with the emission limit in Condition IV.C.1.a shall be determined on both a calendar-year total and a 12-month rolling total basis.

2. Monitoring/Recordkeeping/Reporting Requirements

The Permittee shall use the following procedure to demonstrate compliance with the NO_x emission limitation in Condition IV.C.1.a:

[A.A.C. R18-2-306.A.3.c]

a. The Permittee shall use the data from the continuous NO_x emission monitoring systems for Unit 1 and Unit 2 as required by Condition II.F.2, the continuous flow monitoring systems for Unit 1 and Unit 2 as required by 40 CFR Part 75, and the flow monitoring systems and continuous nitrogen oxides emission monitoring systems for Unit 3 and Unit 4 as required by Conditions III.E.3 and III.J.1 respectively.

b. For each calendar month, the Permittee shall calculate and record the monthly mass emissions for each steam generating unit that operated during the calendar month. The monthly mass emissions shall be expressed in tons.

c. For each calendar month, the Permittee shall calculate and record the combined monthly mass emissions for Unit 1, Unit 2, Unit 3, and Unit 4. The combined monthly mass emissions shall be calculated as the sum of the monthly mass emissions for all steam generating units that operated during the calendar month. The combined monthly mass emissions shall

be expressed in tons.

d. For each calendar month, the Permittee shall calculate and record the combined annual mass emissions for Unit 1, Unit 2, Unit 3, and Unit 4. The combined annual mass emissions shall be calculated as the sum of the combined monthly mass emissions for the subject month, plus the combined monthly mass emissions for the eleven preceding months. The combined annual mass emissions shall be expressed in tons.

e. The data recorded under Conditions IV.C.2.b and d shall be available for inspection by the 5th working day of the month following the month for which the calculation is being made.

f. For each continuous monitoring system for NO_x emissions, the Permittee shall submit a Quality Assurance/Quality Control Plan to the Director at least 30 days prior to the start-up of the monitoring system. Each plan shall include procedures for dealing with data gaps using the procedures contained in 40 CFR Part 75, Subpart D. When approved by the Director, this plan shall be implemented.

g. Combined mass emissions that exceed the rolling 12-month NO_x emission limitation in Condition IV.C.1.a shall constitute a violation for each day of the preceding month for each electric generating unit in operation on that day.

h. Combined mass emissions that exceed the calendar-year NO_x emission limitation in Condition IV.C.1.a shall constitute a violation for each day of the preceding calendar year for each electric generating unit in operation on that day.

i. A violation under Conditions IV.C.2.g and h that occurs on the same day at the same unit shall count as a single violation.

D. Sulfuric Acid Mist (H_2SO_4)

1. Emission Limitations/Standards

[A.A.C. R18-2-306.02]

The Permittee shall not cause to be discharged into the atmosphere from the stacks of Unit 1, Unit 2, Unit 3, and Unit 4, in total, any gases which contain H_2SO_4 mist in excess of 211 tons/ year. Compliance with this emission cap shall be determined on a 12-month rolling total basis.

2. Monitoring/Recordkeeping/Reporting Requirements

a. Compliance Determination Requirements for H_2SO_4 Mist Emission Cap

The Permittee shall use the following procedures to demonstrate compliance with the H_2SO_4 mist emission limitation in Condition IV.D.1:

[A.A.C. R18-2-306.A.3.c]

(1) For each calendar month, the Permittee shall calculate and record the monthly mass emissions of H_2SO_4 mist for each steam

generating unit that operated during the calendar month. The monthly mass emissions of H_2SO_4 mist for each unit shall be calculated as the product of the SO_2 monthly mass emissions for that unit as calculated under Condition IV.B.2.b and the sulfur compound emission ratio for that unit. The monthly mass emissions of H_2SO_4 mist for each steam generating unit shall be expressed in tons.

(a) The sulfur compound emission ratio for Unit 1 and Unit 2 is 0.01127.

(b) The sulfur compound emission ratio for Unit 3 is 0.0408 and for Unit 4 is 0.025.

(2) For each calendar month, the Permittee shall calculate and record the combined monthly mass emissions of sulfuric acid mist for Unit 1, Unit 2, Unit 3, and Unit 4. The combined monthly mass emissions of H_2SO_4 shall be calculated as the sum of the monthly mass emissions of H_2SO_4 mist for all steam generating units that operated during the calendar month. The combined monthly mass emissions of H_2SO_4 mist shall be expressed in tons.

(3) For each calendar month, the Permittee shall calculate and record the combined annual mass emissions of H_2SO_4 mist for Unit 1, Unit 2, Unit 3, and Unit 4. The combined annual mass emissions of H_2SO_4 mist shall be calculated as the sum of the combined monthly mass emissions of H_2SO_4 mist for the subject month, plus the combined monthly mass emissions of H_2SO_4 mist for the eleven preceding months. The combined annual mass emissions of H_2SO_4 mist shall be expressed in tons.

(4) The data recorded under Conditions IV.D.2.a (1) through (3) shall be available for inspection by the 5th working day of the month following the month for which the calculation is being made.

(5) Each calendar month for which the combined annual mass emissions of H_2SO_4 mist exceeds the H_2SO_4 mist emission limitation in Condition IV.D.1 shall constitute a period of excess emissions.

E. Hazardous Air Pollutants

1. Applicability

The requirements of 40 CFR Part 63, Subpart UUUUU are applicable to the existing large major source boilers (Unit 1, Unit 2, Unit 3, and Unit 4) at Springerville Generating Station.

[40 CFR 63.9981 and 40 CFR 63.9982(d)]

2. Definitions

a. Startup

[40 CFR 63.10042]

Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use).

b. Shutdown

[40 CFR 63.10042]

Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use) or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is both no electricity being generated and no fuel being fired in the boiler.

3. General Requirements

[40 CFR 63.10000(b)]

a. The Permittee shall at all times operate and maintain Unit 1, Unit 2, Unit 3, and Unit 4, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedure are being used will be based on the information available to the director which may include, but is not limited to monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

b. Startup and Shutdown Requirements

[40 CFR 63.10005(j), 10011(g), and Subpart UUUUU, Table 3]

(1) During Startup and Shutdown, the Permittee shall operate all Continuous Emission Monitoring Systems (CEMS).

(2) During the Startup of a Unit, the Permittee shall use clean fuels, such as distillate oil or natural gas, or a combination of clean fuels for ignition.

(3) The Permittee shall engage all of the applicable control technologies, except dry scrubber and SCR, upon converting to firing coal. The Permittee shall start the dry scrubber and SCR, if present, appropriately to comply with relevant standards applicable during normal operation.

(4) During Shutdown, the Permittee shall operate all applicable control technologies while firing coal (or co-firing used oil or used oil-fuel with coal for Unit 1) and continue to operate those control

devices after the cessation of coal being fed into the units and for as long as possible thereafter considering operational and safety concerns.

(5) The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown.

c. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10000(b), 10005(j), and 10011(g).

4. Steam Boiler Tune-ups

a. The Permittee shall conduct periodic performance tune-ups following the procedures of Condition IV.E.4.b, as applicable. For units not employing neural network combustion optimization during normal operation, each performance tune-up shall be no more than 36 calendar months after the previous performance tune-up. For units employing neural network combustion optimization systems during normal operation, each performance tune-up shall be no more than 48 calendar months after the previous performance tune-up. If the affected unit is offline when a deadline to perform the tune-up passes, the Permittee shall perform the tune-up work practice requirements within 30 days after the re-start of the unit.

[40 CFR 63.10006(i), 10021(e), and 40 CR 63, Subpart UUUUU, Table 3]

b. Tune-up Procedures

[40 CFR 63.10021(e)(1) through (e)(7)]

To complete a tune-up, the Permittee shall:

(1) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

(a) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_X and CO shall be installed within 3 calendar months after the burner inspection,

(b) Burner or combustion control component parts that do not affect the ability to optimize NO_X and CO may be installed on a schedule determined by the Permittee;

(2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the

manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type;

(3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors;

(4) As applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors;

(5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O_2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary;

(6) Optimize combustion to minimize generation of CO and NO_X. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_X optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles;

(7) While operating at full load or the predominantly operated load, the Permittee shall measure the concentration in the effluent stream of CO and NO_X in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Use of portable CO, NO_X and O_2 monitors for this measurement is allowed. For units employing neural network optimization systems, provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system.

c. Record Keeping and Reporting Requirements

(1) The Permittee shall maintain on-site and submit if requested by the Administrator or Director, an annual report containing the

following:

[40 CFR 63.10021(e)(8)]

(a) The concentrations of CO and NO_X in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the steam boiler combustion systems;

(b) A description of any corrective actions taken as a part of the combustion adjustment; and

(c) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and

(2) The Permittee shall report the dates of the periodic tune-ups in hard copy or electronic media, as specified in Condition IV.E.12.(f)(5). The tune-up report date is the date when tune-up requirements in Conditions IV.E.4.b.(6) and (7) are completed.

[40 CFR 63.100021(e)(9)]

d. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10006(i) and 63.10021(e)(1) through (9).

[A.A.C. R18-2-325]

5. Site Specific Monitoring Plan

The Permittee shall develop and submit a site-specific monitoring plan at least 60 days before the initial performance evaluation (where applicable) of each CEMS. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS prepared under Appendix B to 40 CFR Part 60 or 40 CFR Part 75, and that meet the requirements of 40 CFR 63.10010 (Condition IV.E.9). Using the process described in 40 CFR 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this Condition and, if approved, include those in the site-specific monitoring plan. The monitoring plan shall address the following:

[40 CFR 63.10000(d)(1)]

a. The site-specific monitoring plan shall include the information specified in Conditions IV.E.5.d(1) through (7). Alternatively, these requirements of Conditions IV.E.5.d(1) through (7) are considered to be met for a particular CEMS or sorbent trap monitoring system if:

[40 CFR 63.10000(d)(2)]

(1) The CEMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or appendix A or B of 40 CFR Part 63, Subpart UUUUU; and

[40 CFR 63.10000(d)(2)(i)]

(2) The recordkeeping and reporting requirements of 40 CFR Part 75, or appendix A or B of 40 CFR Part 63, Subpart UUUUU, that pertain to the CEMS are met.

[40 CFR 63.10000(d)(2)(ii)]

b. The Permittee shall submit the monitoring plan, or relevant portion of the plan, at least 60 days before the initial performance evaluation of a particular CEMS, except where the CEMS has already undergone a performance evaluation that meets the requirements of 40 CFR 63.10010 (Condition IV.E.9)(e.g., if the CEMS was previously certified under another program). [40 CFR 63.10000(d)(3)]

c. The Permittee shall operate and maintain the CEMS according to the site-specific monitoring plan.

[40 CFR 63.10000(d)(4)]

d. The provisions of the site-specific monitoring plan shall address the following items:

[40 CFR 63.10000(d)(5)]

(1) Installation of the CEMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). For an affected unit that exhausts to the atmosphere through a single, dedicated stack, the Permittee shall either install the required CEMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.

[40 CFR 63.10000(d)(5)(i)]

(2) Performance and equipment specifications for the sample interface, the pollutant concentration, and the data collection and reduction systems.

[40 CFR 63.10000(d)(5)(ii)]

(3) Schedule for conducting initial and periodic performance evaluations.

[40 CFR 63.10000(d)(5)(iii)]

(4) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d).

[40 CFR 63.10000(d)(5)(iv)]

(5) On-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), 40 CFR 63.8(c)(3), and 40 CFR 63.8(c)(4)(ii).

[40 CFR 63.10000(d)(5)(v)]

(6) Conditions that define a CEMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) and for responding to out of control

periods consistent with 40 CFR 63.8(c)(7)(ii) and 40 CFR 63.8(c)(8).

[40 CFR 63.10000(d)(5)(vi)]

(7) On-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), 40 CFR 63.10(e)(1), and 40 CFR 63.10(e)(2)(i), or as specifically required under 40 CFR Part 63, Subpart UUUUU.

[40 CFR 63.10000(d)(5)(vii)]

e. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10000(d)(1).

[A.A.C. R18-2-325]

6. Emission Limits/Standards

[40 CFR Part 63, Subpart UUUUU, Table 2]

At all times, except during periods of startup and shutdown, as defined in Condition IV.E.2, the Permittee shall not cause to be discharged into the atmosphere from any steam boiler stack, emissions of the following pollutants:

a. PM

Total particulate matter (PM) emissions in excess of 0.03 lb/MMBtu or 0.3 lb/MWh.

b. Hg

Mercury (Hg) emissions in excess of 1.2 pound per trillion British Thermal Units (lb/TBtu) or 0.013 pound per gigawatt-hour (lb/GWh).

c. Acid Gases

(1) HCl

Total hydrogen chloride (HCl) emissions in excess of 0.002 lb/MMBtu or 0.02 lb/MWh; or

(2) SO_2

Sulfur dioxide (SO_2) emissions in excess of 0.2 lb/MMBtu or 1.5 lb/MWh.

7. Low Emitting EGU (LEE)

a. Unit 1, Unit 2, Unit 3, and Unit 4 may qualify for LEE status for pollutants identified in Condition IV.E.6 if the Permittee collects performance test data that demonstrate:

[40 CFR 63.10005(h)(1)]

(1) For PM LEE

[40 CFR 63.10005(h)(1)(i)]

Performance test emissions results less than 50 percent of the applicable emissions limits in Condition IV.E.6.a for all required quarterly testing for 3 consecutive years.

(2) For Hg LEE

[40 CFR 63.10005(h)(1)(ii)]

(a) Average emissions less than 10 percent of the applicable Hg emissions limit in Condition IV.E.6.b; or

(b) Potential Hg mass emissions of 29.0 or fewer pounds per year and compliance with the applicable Hg emission limit in Condition IV.E.6.b (expressed either in units of lb/TBtu or lb/GWh).

(3) For HCl

Performance test emissions results less than 50 percent of the HCl emission limit established in Condition IV.E.6.c(1) for all required testing for 3 consecutive years.

[40 CFR 63.10005(h)(1)(i)]

b. LEE Performance Testing

(1) For PM LEE

(a) For a qualifying PM LEE, the Permittee shall conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(1)(iii)]

(b) The Permittee shall repeat the PM LEE performance test once every 3 years according to Table 5 of 40 CFR Part 63, Subpart UUUUU, and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, the Permittee shall conduct emissions testing quarterly for PM. The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10006(b)(1) and 10021(d)(1)]

(c) If a performance test on PM LEE shows emissions in excess of 50 percent of the emission limit and if the Permittee chooses to reapply for LEE status, the Permittee shall conduct quarterly performance tests according to Table 5 of 40 CFR Part 63, Subpart UUUUU and 40 CFR 63.10007, until all performance tests over a consecutive 3-year period show compliance with the LEE criteria. The Permittee may skip performance testing in those quarters during which, for each individual boiler,

less than 168 belier operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10006(h), 10007(b), and 10021(d)(1)]

(2) For Hg LEE

(a) For a qualifying Hg LEE, the Permittee shall conduct a performance test at least once every 12 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(1)(ii)]

(b) For Hg, the Permittee shall repeat performance tests once every year according to Table 5 of 40 CFR Part 63, Subpart UUUUU and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, the Permittee shall install, certify maintain, and operate an Hg CEMS or sorbent trap monitoring system in accordance with Condition IV.E.9.d(1), within 6 calendar months of losing HG LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified, and operating, the Permittee shall conduct quarterly Hg emissions testing, other than those quarters during which, for each individual boiler, less than 168 boiler operating hours occur except that a performance test shall be conducted at least once every calendar year. There shall be 3 calendar years of testing and CEMS or sorbent trap monitoring system data that satisfy the LEE emissions criteria to reestablish LEE status.

[40 CFR 63.10006(b)(2) and 10021(d)(1)]

(3) For HCl LEE

(a) For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status.

[40 CFR 63.10000(c)(1)(iii)]

(b) The Permittee shall repeat the performance test once every 3 years according to Table 5 of 40 CFR Part 63, Subpart UUUUU, and 40 CFR 63.10007. Should subsequent emissions testing results show the unit does not meet the LEE eligibility requirements, LEE status is lost. If this should occur, the Permittee shall conduct emissions testing quarterly for HCl. The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 belier operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10006(b)(1) and 10021(d)(1)]

(c) If a performance test on HCl LEE shows emissions in excess of 50 percent of the emission limit and if the Permittee chooses to reapply for LEE status, the Permittee shall conduct quarterly performance tests according to Table 5 of 40 CFR Part 63, Subpart UUUUU and 40 CFR 63.10007 until all performance tests over a consecutive 3-year period show compliance with the LEE criteria. The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 belier operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10006(h), 10007(b), and 10021(d)(1)]

c. Non-LEE Qualification

(1) For Non-LEE PM

If a Unit does not qualify as a LEE for filterable particulate matter (PM), the Permittee shall demonstrate continuous performance through either use of a PM CEMS or compliance performance testing repeated quarterly.

[40 CFR 63.10000(c)(1)(iv)]

(2) For Non-LEE Hg

If a Unit does not qualify as a LEE for Hg, the Permittee shall demonstrate continuous compliance through the use of an Hg CEMS or a sorbent trap monitoring system, in accordance with Condition IV.E.9.d.

[40 CFR 63.10000(c)(1)(vi)]

(3) For Non-LEE HCl

If a Unit does not qualify as a LEE for hydrogen chloride (HCl) or SO_2, The Permittee shall either

(a) Demonstrate continuous compliance through the use of an HCl CEMS, installed and operated in accordance with Condition IV.E.9.e.; or

(b) Demonstrate continuous compliance by conducting a periodic quarterly performance stack test for HCl; or

(c) Demonstrate continuous compliance through the use of an SO_2 CEMS, installed and operated in accordance Condition IV.E.9.f.

[40 CFR 63.10000(c)(1)(v)]

d. Record Keeping Requirements

For a steam boiler that qualifies as LEE, the Permittee shall keep annual records that document that the emissions in the previous stack test(s)

continue to qualify the unit for LEE status, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.

[40 CFR 63.10032(d)(3)]

e. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10005(h)(1), (h)(1)(i), (h)(1)(ii), 10000(c)(1)(i) to (vi), 10006(b)(1), (b)(2), (h), 10007(b), 10021(d), and 10032(d)(3).

8. Continuous Compliance Demonstration

a. General Requirements

(1) If a CEMS is used to determine compliance with a 30- boiler operating day rolling average emission limit, the Permittee shall collect quality-assured CEMS data for all unit operating conditions, including startup and shutdown, except as otherwise provided in Condition IV.E.9.b. Emission rates determined during startup periods and shutdown periods (as defined in Condition IV.E.2) shall not be included in the compliance determinations, except with the use of one sorbent trap monitoring system for compliance demonstration with Hg emissions limit.

[40 CFR 63.10007(a)(1)]

(2) The Permittee shall demonstrate continuous compliance with the emission limits established in Condition IV.E.6 at all times, excluding during startup or shutdown.

[40 CFR 63.10000(a)]

(3) As part of the demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the steam generating units, according to Condition IV.E.4.

[40 CFR 63.10000(e)]

(4) If a performance test is conducted in lieu of continuous monitoring to demonstrate compliance with emission limits, the Permittee shall use test methods and procedures as specified in 40 CFR 63.10007 and Table 5 to Subpart UUUUU of 40 CFR 63. During each periodic (e.g., quarterly) performance test, the Permittee shall operate the unit at maximum normal operating load conditions. Maximum normal operating load is defined to be generally between 90 and 110 percent of design capacity but shall be representative of site specific normal operations during each test run.

[40 CFR 63.10007(a) and (a)(2)]

(5) The Permittee shall complete performance tests for each affected unit according to the following timeline:

[40 CFR 63.10006(f)]

(a) At least 45 calendar days, measured from the test's end date, must separate performance tests conducted every quarter;

[40 CFR 63.10006(f)(i)]

(b) For annual testing:

(i) At least 320 calendar days, measured from the test's end date, must separate performance tests;

[40 CFR 63.10006(f)(1)(ii)(A)]

(ii) At least 320 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests; and

[40 CFR 63.10006(f)(1)(ii)(B)]

(c) At least 1,050 calendar days, measured from the test's end date, must conduct separate performance tests every 3 years.

[40 CFR 63.10006(f)(1)(iii)]

(d) For a unit demonstrating compliance through quarterly emission testing, the Permittee shall conduct a Performance test in the 4th quarter of a calendar year if that unit has skipped performance tests in the first 3 quarters of the calendar year.

[40 CFR 63.10006(f)(2)]

(e) If a unit misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, the Permittee shall complete an additional performance test in that period as follows:

[40 CFR 63.10006(f)(3)]

(i) At least 15 calendar days must separate two performance tests conducted in the same quarter.

[40 CFR 63.10006(f)(3)(i)]

(ii) At least 107 calendar days must separate two performance tests conducted in the same calendar year.

[40 CFR 63.10006(f)(3)(ii)]

(iii) At least 350 calendar days must separate two performance tests conducted in the same 3 year period.

[40 CFR 63.10006(f)(3)(iii)]

b. Particulate Matter

The Permittee shall demonstrate continuous compliance with the PM emission limit in Condition IV.E.6 by using one of the following methods:

(1) If a PM CEMS is not installed, the Permittee shall perform quarterly performance stack testing for filterable particulate matter (PM) for each individual steam boiler as follows:

[40 CFR 63.10000(c)(1)(iv) and 10006(c)]

(a) Conduct performance tests following the methods in Table 5 of 40 CFR Part 63, Subpart UUUUU and calculate the results of the testing in units of the applicable emissions standard.

[40 CFR 63.10021(d)(2)]

(b) The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 boiler operating hours occur, except that a performance test shall be conducted at least once every calendar year.

[40 CFR 63.10021(d)(1)]

(2) If a PM CEMS is installed in accordance with Condition IV.E.9.a, the Permittee may choose to:

(a) Continue to *certify*, operate, maintain and *quality assure the PM CEMS* in accordance with 40 CFR part 75, Condition IV.E.9.d and Condition IV.E.9.c(2).

[40 CFR 63.10000(c)(1)(iv), (d)(2)(i), 10021(b), and A.A. C R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(b) Collect 30-boiler operating days of quality assured emissions data from the PM CEMS for all unit operating conditions, including startup and shutdown, except as otherwise provided in Condition IV.E.9.b; and

[40 CFR 63.10007(a)(1)]

(c) Use all quality-assured hourly data recorded by the PM CEMS and the other required monitoring systems (e.g., flow rate, CO_2, O_2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day. Using the following Equation:

$$Boiler\ Operating\ day\ average = \frac{\sum_{i=1}^{n} Her_i}{n}$$

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30-boiler operating days

[40 CFR 63.10021(b)]

c. Mercury

The Permittee shall demonstrate continuous compliance with the Hg emissions limit in Condition IV.E.6 by:

(1) *Certifying*, operating, maintaining, *and quality assuring an Hg CEMS* or a sorbent trap monitoring system in accordance with 40 CFR 63, Subpart UUUUU, Appendix A

(2) Collecting 30-boiler operating days of quality assured emissions data from the Hg CEMS or sorbent trap system for all unit operating conditions, including startup and shutdown, except as otherwise provided in Condition IV.E.9.b; and

[40 CFR 63.10007(a)(1)]

(3) Using all quality-assured hourly data recorded by the Hg CEMS sorbent trap monitoring system and the other required monitoring systems (e.g., flow rate, CO2, O2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30- boiler operating day rolling average basis, updated at the end of each new boiler operating day, using the following Equation:

$$Boiler\ Operating\ day\ average = \frac{\sum_{i=1}^{n} Her_i}{n}$$

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30-boiler operating days.

[40 CFR 63.10000(c)(1)(vi), (d)(2)(i), 10021(b), and AAC R18-2-331.A.3.c]

d. HCL

The Permittee shall demonstrate continuous compliance with either the HCl emission limit or SO_2 emission limit in Condition IV.E.6.c by using one of the following methods:

(1) If an HCl CEMS or SO_2 CEMS is not installed, the Permittee shall perform quarterly performance stack testing for HCl for each individual Unit as follows:

[40 CFR 63.10000(c)(1)(v) and 10006(d)]

(a) Conduct performance tests following the methods in Table 5 of 40 CFR Part 63, Subpart UUUUU and calculate the results of the testing in units of the applicable emissions standard.

[40 CFR 63.10021(d)(2)]

(b) The Permittee may skip performance testing in those quarters during which, for each individual boiler, less than 168 boiler operating hours occur, except that a

performance test shall be conducted at least once every calendar year.

[40 CFR 63.10021(d)(1)]

(2) If an HCl CEMS or SO_2 CEMS is installed in accordance with Condition IV.E.9.a, the Permittee shall choose to:

(a) Continue to *certify*, operate, maintain and *quality assure* the HCl CEMS or SO_2 CEMS *in accordance with 40 CFR part 75 or Appendix B to 40 CFR Part 63, Subpart UUUUU, Conditions IV.E.9.c(2), f, g as they apply.*

[40 CFR 63.10000(c)(1)(v), 10000(d)(2)(i) , 10021(b), and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(b) Collect 30-boiler operating days of quality assured emissions data from the HCl CEMS or SO_2 CEMS for all unit operating conditions, including startup and shutdown, except as otherwise provided in Condition IV.E.9.b; and

[40 CFR 63.10007(a)(1)]

(c) Use all quality-assured hourly data recorded by the CEMS and the other required monitoring systems (e.g., flow rate, CO_2, O_2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day, using the following Equation:

$$Boiler\ Operating\ day\ average = \frac{\sum_{i=1}^{n} Her_i}{n}$$

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30-boiler operating days

[40 CFR 63.10021(b)]

e. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 100000(a), (c)(1)(iv), (v), (vi), (d)(2)(i), (e), 10005(j), 10006(c), (d), (f), 100007(a), 10021(b), (d)(1), and (2).

[A.A.C. R18-2-325]

9. Continuous Emissions Monitoring System Requirements

a. Installation of CEMS

The Permittee shall follow the requirements of 40 CFR 63.10010 for the installation of CEMS and other monitoring systems (e.g. flow rate, CO_2, O_2, or moisture systems). [40 CFR 63.10010]
[Material Permit Condition identified by underline and italics]

b. Data Collection and Recording

The Permittee shall monitor and collect data according to the site-specific monitoring plan required by Condition IV.F.6 and the following:
[40 CFR 63.10020(a)]

(1) The Permittee shall operate the monitoring system and collect data at all required intervals at all times that the steam boiler is operating, except for periods of monitoring system malfunctions or out-of-control periods as defined in Condition IV.E.9.(b)(4) and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.
[40 CFR 63.10020(b)]

(2) The Permittee shall not use data recorded during steam boiler startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.
[40 CFR 63.10020(c)]

(3) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements.
[40 CFR 63.10020(d)]

(4) A CEMS is out of control if

(a) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(b) The CEMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.
[40 CFR 63.8(c)(7)(i)]

(5) When a CEMS is out of control, the Permittee shall take necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The Permittee shall take

corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour when a performance check (e.g., calibration drift) is conducted that indicates an exceedance of the performance requirements established for the CEMS. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the CEMS is within the allowable limits. During the period the CEMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement.

[40 CFR 63.8(c)(7)(ii)]

c. PM CEMS

If the Permittee chooses to use a PM CEMS to show continuous compliance with the emission standards defined in Condition IV.E.6, the Permittee shall install, certify, operate, *and maintain the PM CEMS and record the output of the PM CEMS* as specified below:

[40 CFR 63.10010(i) and A.A.C. R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(1) *The Permittee shall install and certify the PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to 40 CFR 60, using Method 5 at Appendix A-3 to 40 CFR 60 and ensuring that the front half filter temperature shall be 160° ± 14 °C (320° ± 25 °F). The reportable measurement output from the PM CEMS shall be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).*

[40 CFR 63.10010(i)(1)]
[Material Permit Condition identified by underline and italics]

(2) *The Permittee shall operate and maintain the PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to 40 CFR 60.*

[40 CFR 63.10010(i)(2)]
[Material Permit Condition identified by underline and italics]

(a) The Permittee shall conduct the relative response audit (RRA) for the PM CEMS at least once annually.

[40 CFR 63.10010(i)(2)(i)]

(b) The Permittee shall conduct the relative correlation audit (RCA) for the PM CEMS at least once every 3 years.

[40 CFR 63.10010(i)(2)(ii)]

(3) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in Condition IV.E.9.c.(5)(a).

[40 CFR 63.10010(i)(3)]

(4) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours using the equations defined in Condition IV.E.9.c(2).

[40 CFR 63.10010(i)(4)]

(5) The Permittee shall collect data using the PM CEMS at all times the process unit is operating except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

[40 CFR 63.10010(i)(5)]

(a) The Permittee shall use all the data collected during all boiler operating hours in assessing the compliance with the operating limit except:

[40 CFR 63.10010(i)(5)(i)]

(i) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions in calculations and report any such periods in the annual deviation report;

[40 CFR 63.10010(i)(5)(i)(A)]

(ii) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, per Condition IV.E.5, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods in calculations used to report emissions or operating levels and report any such periods in the annual deviation report;

[40 CFR 63.10010(i)(5)(i)(B)]

(iii) Any data recorded during periods of startup or shutdown.

[40 CFR 63.10010(i)(5)(i)(C)]

(b) The Permittee shall record and make available the results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with the site-specific monitoring plan.

[40 CFR 63.10010(i)(5)(ii)]

(6) If the Permittee chooses to install PM CEMS in the stacks of Unit 1, Unit 2, Unit 3, and/or Unit 4, upon certification and operation of the PM CEMS, opacity monitoring standards under 40 CFR

Part 60, Subpart D for that specific Unit shall no longer be applicable.

[40 CFR 60.45(b)(5) and A.A.C. R18-2-306.A.3.c]

d. Mercury (Hg) CEMS or Sorbent Trap Monitoring System

(1) *If the Permittee chooses to use an Hg CEMS or Sorbent Trap System to show continuous compliance with the emission standards defined in Condition IV.E.6, the Permittee shall install, certify,* operate, *maintain and quality-assure the data from the Hg CEMS or a sorbent trap monitoring system in accordance with appendix A to 40 CFR 63, Subpart UUUUU.*

[40 CFR 63.10010(g) and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(2) The Permittee shall calculate and record a 30-boiler operating day rolling average Hg emission rate, in units of the standard, updated after each new boiler operating day, according to section 6.2 of Appendix A to 40 CFR Part 63, Subpart UUUUU. Each 30-boiler operating day rolling average emission rate is the average of all of the valid hourly Hg emission rates in the preceding 30-boiler operating days. [40 CFR 63.10010(g)]

(3) If the Permittee uses a sorbent trap system to monitor Hg emissions, the Permittee shall follow instructions in Section 7.1.4.3 of appendix A to 40 CFR 63, Subpart UUUUU to reduce sorbent trap monitoring system data to an hourly basis.

[40 CFR 63.10010(g)]

e. HCl CEMS

(1) *If the Permittee chooses to use an HCl CEMS to show continuous compliance with the emission standards defined in Condition IV.E.6, the Permittee shall install, certify,* operate, maintain, *and quality assure the data from the monitoring system in accordance with Appendix B of 40 CFR Part 63, Subpart UUUUU.*

[40 CFR 63.10010(e)]
[Material Permit Condition identified by underline and italics]

(2) The Permittee shall calculate and record a 30-boiler operating day rolling average HCl rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl emission rates in the preceding 30-boiler operating days.

[40 CFR 63.10010(e)]

f. SO_2 CEMS

(1) *If the Permittee chooses to use an SO_2 CEMS to show continuous compliance with the emission standards defined in Condition IV.E.6, the Permittee shall certify,* operate, *and* maintain *the CEMS according to 40 CFR Part 75.*

[40 CFR 63.10010(f)(1) and AAC R18-2-331.A.3.c]
[Material Permit Condition identified by underline and italics]

(2) For on-going QA, the SO_2 CEMS shall meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to 40 CFR Part 75, with the following addition: the Permittee shall perform the linearity checks required in section 2.2 of appendix B to 40 CFR Part 75 if the SO_2 CEMS has a span value of 30 ppm or less.

[40 CFR 63.10010(f)(2)]

(3) Calculate and record a 30-boiler operating day rolling average SO_2 emission rate in the units of the standard using the equation defined in Condition IV.E.9.c, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid SO_2 emission rates in the preceding 30 boiler operating days.

[40 CFR 63.10010(f)(3)]

(4) The Permittee shall use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; shall not apply bias adjustment factors to the 40 CFR Part 75 SO_2 data and shall not use 40 CFR Part 75 substitute data values.

[40 CFR 63.10010(f)(4)]

g. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10010(i), (i)(1) to (5), (e), (f)(1) to (4), (g), 10020, 10020(b), (c), (d), and 40 CFR 60.45(b)(5).

10. Deviation Determination

a. Definition

Deviation means any instance in which a steam boiler, or the Permittee:

[40 CFR 63 10042]

(1) Fails to meet any requirement or obligation established by 40 CFR Part 63 Subpart UUUUU including, but not limited to, any emission limit, operating limit, work practice standard, or monitoring requirement; or

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in 40 CFR Part 63, Subpart UUUUU and that is included in the operating permit for any affected source required to obtain such a permit.

b. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the Director responsible for enforcement of the standards.

c. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10042.

11. Notifications

a. The Permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 40 CFR 63.8 (e), (f)(4) and (6), and 40 CFR 63.9 (b) through (h) that apply by the dates specified.

[40 CFR 63.10030(a)]

b. The Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

[40 CFR 63.10030(d)]

c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10030(a) and (d).

[A.A.C. R18-2-325]

12. Reports

[40 CFR 63.10031]

The Permittee shall submit to the Director all reports required by 40 CFR 63, Subpart UUUUU and shall meet the reporting requirements as specified by 40 CFR 63.10031 and 40 CFR 63.10(e).

a. The Permittee shall submit each compliance report as described in Table 8 of 40 CFR 63, Subpart UUUUU. If the Permittee is required to continuously monitor Hg, the Permittee shall also submit the electronic reports required under appendix A and/or appendix B of 40 CFR 63, Subpart UUUUU, at the specified frequency.

[40 CFR 63.10031(a)]

b. The Permittee shall submit compliance reports semiannually according to timelines established in Condition XIV of Attachment A.

c. Each semiannual compliance report shall contain the following information:

[40 CFR 63.10031(c)]

(1) The information required by the summary report in Condition IV.E.12.d.(3).

[40 CFR 63.10031(c)(1)]

(2) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the Permittee's basis for concluding that the fuel is not a waste,

and the total fuel usage amount with units of measure.

[40 CFR 63.10031(c)(2)]

(3) Indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee shall include the date of the performance test where that fuel was in use.

[40 CFR 63.10031(c)(3)]

(4) Include the date of the most recent tune-up for each unit. The date of the tune-up is the date the combustion optimization specified in Condition IV.E.4.b(6) and post tune-up CO/NO_x measurement specified in Condition IV.E.4.b(7) were completed;

[40 CFR 63.10031(c)(4)]

(5) A summary of the results of the annual performance tests. If stack tests are conducted once every 3 years to maintain LEE status, consistent with Condition IV.E.7.b, the date of each stack test conducted during the previous 3 years, a comparison of emission level you achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in Condition IV.E.7.a, and a statement as to whether there have been any operational changes since the last stack test that could increase emissions;

[40 CFR 63.10031(c)(7)]

(6) A truth and accuracy certification;

[40 CFR 63.10031(c)(8)]

(7) If a deviation from any emission limit or work practice standard occurred during the reporting period, include a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation;

[40 CFR 63.10031(c)(9)]

(8) For each excess emissions occurring at an affected source where a CEMS is used to comply with that emission limit, include the information required in Condition IV.E.12.d(2).

[40 CFR 63.10031(d)]

(9) If there were periods during which the CEMS was out-of-control, as defined in Condition IV.E.9.b(4), include the information reported in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A);

(10) If no deviations from any emission limit or work practice standard occurred during the reporting period, include a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which a CEMS was out-of-control as specified in Condition IV.E.9.b(4), a statement that there were no periods during which the CEMS was out-of-control during the reporting period; and

(11) If a malfunction occurred during the reporting period, include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

d. For an affected unit required to install a CEMS, the Permittee shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Department semiannually as follows:

[40 CFR 63.10(e)(3)(i)]

(1) All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half (i.e., the first report to be submitted no later than July 30th of the current year and the second report to be submitted no later than January 30th of the following year).

[40 CFR 63.10(e)(3)(v)]

(2) Excess emissions and monitoring system performance reports shall contain all the information as described in Conditions IV.E.12.d(2)(a) through (i). When no excess emissions have occurred, or a CEMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 63.10(e)(3)(v)]

(a) The name, title, and signature of the responsible official who is certifying the accuracy of the report;

(b) The date and time identifying each period during which the CEMS was inoperative except for zero (low-level) and high-level checks;

(c) The date and time identifying each period during which the CEMS was out of control, as defined in Condition IV.E.9.b(4);

(d) The nature of the repairs or adjustments to, or corrective actions taken for, the CEMS that was inoperative or out of control;

(e) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected source;

(f) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(g) The nature and cause of any malfunction (if known);

(h) The corrective action taken or preventive measures adopted for the malfunction; and

(i) The total process operating time during the reporting period.

(3) As specified under Conditions IV.E.12.d(4) and (5), one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report - Gaseous Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(a) The company name and address of the affected source;

(b) An identification of each hazardous air pollutant monitored at the affected source;

(c) The beginning and ending dates of the reporting period;

(d) A brief description of the process units;

(e) The emission limitations specified in the relevant standard(s);

(f) The monitoring equipment manufacturer(s) and model number(s);

(g) The date of the latest CEMS certification or audit;

(h) The total operating time of the affected source during the reporting period;

(i) An emission data summary, including the total duration of excess emissions during the reporting period (recorded in hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(j) A CEMS performance summary, including the total CEMS downtime during the reporting period (recorded in hours for gases), the total duration of CEMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CEMS downtime during the reporting period into periods

that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(k) A description of any changes in CEMS, processes, or controls since the last reporting period;

(l) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(m) The date of the report

(4) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period, and CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted.

(5) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CEMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

e. The Permittee shall report all deviations as defined in Condition IV.E.10, in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A). If the Permittee submits a compliance report pursuant to Table 8 of 40 CFR 63, Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the Permittee may have to report deviations from permit requirements to the permit authority.

[40 CFR 63.10031(e)]

f. On or after July 1, 2018, within 60 days after the date of completing each performance test, the Permittee shall submit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. If some of

the information submitted for performance tests is confidential business information (CBI) is included in the performance test data, the Permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted shall be submitted to EPA via CDX as described earlier in this Condition. At the discretion of the Department, the Permittee shall also submit these reports, including the confidential business information, to the Department in the format specified by the Department.

[40 CFR 63.10031(f)]

(1) Prior to July 1, 2018, all reports subject to electronic submittal in Condition IV.E.12.f and Condition IV.E.12.f.(2) through Condition IV.E.12.f.(5) shall be submitted to the EPA at the frequency specified in those conditions in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report shall include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements shall be entered into the ECMPS Client Tool at the time of submission of each PDF file:

[40 CFR 63.10031(f)(6)]

(a) The facility name, physical address, mailing address (if different from the physical address), and county;

[40 CFR 63.10031(f)(6)(i)]

(b) The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID;

[40 CFR 63.10031(f)(6)(ii)]

(c) The EGU (or EGUs) to which the report applies. Report the EGU IDs as they appear in the CAMD Business System;

[40 CFR 63.10031(f)(6)(iii)]

(d) The identification of each emission point to which the report applies. An “emission point” is a point at which source effluent is released to the atmosphere, and is a dedicated stack that serves one of the EGUs identified in Condition IV.E.12.f(1)(c). To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (e.g., “Unit 2 stack”);

[40 CFR 63.10031(f)(6)(vi)]

(e) The rule citation (e.g., 40 CFR 63.10031(f)(1), 40 CFR 63.10031(f)(2), etc.) for which the report is showing compliance;

[40 CFR 63.10031(f)(6)(vii)]

(f) The pollutant(s) being addressed in the report;
[40 CFR 63.10031(f)(6)(viii)]

(g) The reporting period being covered by the report (if applicable);
[40 CFR 63.10031(f)(6)(ix)]

(h) The relevant test method that was performed for a performance test (if applicable);
[40 CFR 63.10031(f)(6)(x)]

(i) The date the performance test was conducted (if applicable); and
[40 CFR 63.10031(f)(6)(xi)]

(j) The responsible official's name, title, and phone number.
[40 CFR 63.10031(f)(6)(xi)(i)]

(2) On or after July 1, 2018, within 60 days after the date of completing each CEMS (SO_2, PM, HCl, or Hg, as applicable) performance evaluation test, as defined in 40 CFR 63.2 and required by 40 CFR 63 Subpart UUUUU, the Permittee shall submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by 40 CFR 63 Subpart UUUUU to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT). Only RATA data compounds listed on the ERT Web site are subject to this requirement. If confidential business information (CBI) is included in the RATA data, the Permittee shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this Condition. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The Permittee shall also submit these RATAs to the Director in the format specified in this condition. The Permittee shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in 40 CFR 63.2 and as required in 40 CFR Part 63, Subpart UUUUU.
[40 CFR 63.10031(f)(1)]

(3) On or after July 1, 2018, for a PM CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, the Permittee shall submit quarterly reports to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide

an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports shall include all of the calculated 30-boiler operating day rolling average values derived from the CEMS.

[40 CFR 63.10031(f)(2)]

(4) Reports for an SO_2 CEMS, a Hg CEMS or sorbent trap monitoring system, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to 40 CFR Part 63, Subpart UUUUU and 40 CFR 63.10021(f).

[40 CFR 63.10031(f)(3)]

(5) On or after July 1, 2018, submit the compliance reports required under Conditions IV.E.12.c to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The Permittee shall use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format.

[40 CFR 63.10031(f)(4)]

(6) All reports required by 40 CFR 63, Subpart UUUUU not subject to the requirements in Condition IV.E.12.e and Conditions IV.E.12e(1) through (4) shall be sent to the Director at 1110 W. Washington St., Phoenix, AZ 85007. These reports may be submitted on electronic media. The Director retains the right to require submittal of reports subject to Condition IV.E.12.e and Conditions IV.E.12.e (1) through (4) in paper format.

[40 CFR 63.10031(f)(5)]

g. Permit Shield

[A.A.C. R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with 40 CFR 63.10031(a), (c)(1), (2), (3), (4), (7), (8), (9), (d), (e), (e)(3)(i), (v), (f), (f)(1) to (6), (6)(i) to (xi), and (xi)(i).

13. Record Keeping Requirements

[40 CFR 63.10032]

a. The Permittee shall keep records according to Conditions IV.E.13.a.(1) and (2). The Permittee shall also keep the records required under appendix A of 40 CFR 63, Subpart UUUUU.

[40 CFR 63.10032(a)]

(1) A copy of each notification and report that the Permittee submitted to comply 40 CFR 63, Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that are submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

[40 CFR 63.10032(a)(1)]

(2) Records of performance stack tests, fuel analyses, or other

compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).

[40 CFR 63.10032(a)(2)]

b. For each CEMS, the Permittee shall keep records according to Conditions IV.E.13.b.(1) through (4).

[40 CFR 63.10032(b)]

(1) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).

[40 CFR 63.10032(b)(1)]

(2) Previous (*i.e.* superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

[40 CFR 63.10032(b)(2)]

(3) Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).

[40 CFR 63.10032(b)(3)]

(4) Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

[40 CFR 63.10032(b)(4)]

c. The Permittee shall keep the records required in Table 7 of 40 CFR 63, Subpart UUUUU including records of all monitoring data and calculated averages for applicable limits to show continuous compliance with each applicable emission limit.

[40 CFR 63.10032(c)]

d. For each steam boiler subject to an emission limit, the Permittee shall also keep the records in Condition IV.E.13.d.(1) and (2).

[40 CFR 63.10032(d)]

(1) The Permittee shall keep records of monthly fuel use by each steam boiler, including the type(s) of fuel and amount(s) used.

[40 CFR 63.10032(d)(1)]

(2) For a boiler unit that qualifies as an LEE under Condition IV.E.7, the Permittee shall keep annual records that document that the unit's emissions in the previous stack test(s) continue to qualify the unit for LEE status for an applicable pollutant, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the pollutant to increase within the past year.

[40 CFR 63.10032(d)(3)]

e. The Permittee shall keep records of the occurrence and duration of each startup and/or shutdown. [40 CFR 63.10032(f)]

f. The Permittee shall keep records of the occurrence and duration of each malfunction of an operation (i.e. process equipment) or the air pollution control and monitoring equipment.

[40 CFR 63.10032(g)]

g. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with Condition IV.E.3.a, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.10032(h)]

h. The Permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown.

[40 CFR 63.10032(f)(2)]

i. The Permittee shall keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

[40 CFR 63.10033(a)]

j. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 CFR 63.10033(b)]

k. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years.

[40 CFR 63.10033(c)]

l. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.10032, 10033(a) to (c).

V. AUXILIARY BOILER (P5)

A. Applicability

This Section applies to the Auxiliary Boiler listed in Equipment List, Attachment "C".

B. Operating Limitations

1. Fuel Limitations

a. The Permittee shall burn only No. 2 diesel fuel or bio-diesel in the auxiliary boiler.

[A.A.C. R18-2-306.A.2]

b. The Permittee shall not use high sulfur oil (fuel sulfur content $\geq$ 0.9 percent by weight) as a fuel unless the Permittee demonstrates to the satisfaction of the Director that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the SO_2 ambient air quality standards set forth in A.A.C. R18-2-202 will not be violated.

[A.A.C. R18-2-724.G]

2. Monitoring/Recordkeeping/Reporting Requirements

[A.A.C.R18-2-306.A.4]

a. The Permittee shall record the dates and hours of operation of the auxiliary boiler.

b. The Permittee shall submit the dates and hours of operation of the auxiliary boiler for the period of each compliance certification.

3. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Condition of this Part shall be deemed compliance with A.A.C.R-18-724.G.

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity

[A.A.C. R18-2-724.J]

The Permittee shall not cause, allow or permit to be emitted into the atmosphere from the auxiliary boiler, smoke which exceeds 15 percent opacity.

b. Particulate Matter

[A.A.C. R18-2-724.C.1]

The Permittee shall not cause, allow or permit the emission of PM, caused by the combustion of fuel, from the auxiliary boiler in excess of the amount calculated by the following equation:

$E = 1.02\ Q^{0.769}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

2. Monitoring/Recordkeeping/Reporting Requirements

a. The Permittee shall, for every 120 hours of operation of auxiliary boiler, conduct periodic opacity monitoring, when in operation, as per Condition I.A.

[A.A.C. R18-2-306.A.3.c]

b. Particulate Matter

[A.A.C. R18-2-306.A.4]

The Permittee shall keep on record, along with the fuel firing rate, the contractual agreement with the liquid fuel vendor containing the specifications of the liquid fuel being fired for the following parameters:

(1) The higher heating value, and

(2) The ash content

3. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C. R-18-724.C.1 and J.

D. Sulfur Dioxide (SO_2)

1. Emission Limitations/Standards

The Permittee shall not cause, allow, or permit the emission of more than 1.0 pounds of SO_2 per million Btu heat input.

[A.A.C. R18-2-724.E]

2. Monitoring/Recordkeeping/Reporting Requirements

[A.A.C.R18-2-306.A.4]

a. The Permittee shall keep records of fuel supplier contractual agreement including the following information:

(1) The name of the oil supplier;

(2) The sulfur content and heating value of the oil from which the shipment came; and

(3) The method used to determine the sulfur content of the oil.

b. The Permittee shall maintain records of all emissions calculations performed for any change in Condition V.D.2.a (2) according to the following equation:

SO_2 (lb/MMBtu) =2.0 x [(Weight percent of sulfur/100) x (Density in lb/gal)] ÷ [Heating value of fuel in Btu/gal x 1 MMBtu / 1,000,000 Btu]

3. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R-18-2-724.E.

VI. EMERGENCY INTERNAL COMBUSTION ENGINES (ICEs)

A. Applicability

This Section applies to emergency diesel generator and diesel fire pumps listed in Equipment List, Attachment “C”.

B. Operating Limitations

1. Fuel Limitation

[A.A.C. R18-2-306.A.2]

The Permittee shall burn only diesel fuel or bio-diesel in the ICEs.

2. Hourly Limitations

[A.A.C. R18-2-306.A.2]

The Permittee shall limit the hours of operation for each ICE to no more than 500 hours per year in any rolling 12- month period.

3. Record Keeping Requirements

[A.A.C. R18-2-306.A.3.c]

The Permittee shall keep records of the rolling 12-month total hours of operation of each ICE to demonstrate compliance with the hourly limitation in Condition VI.B.2.

C. Existing Source Requirements

1. Applicability

This Section applies to the emergency diesel generator and diesel fire pumps marked as 'No' under the New Source Performance Standards (NSPS) Applicability column in the Equipment List, Attachment "C".

2. Particulate Matter & Opacity

a. Emission Limitations and Standards

[A.A.C.R18-2-719.C.1]

(1) The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel in excess of the amounts calculated by the following equation:

$E = 1.02Q^{0.769}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million BTU per hour.

(2) For the purpose of this Section, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-719.B]

(3) Opacity

[A.A.C. R18-2-719.E]

(a) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40 percent opacity.

(b) Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

b. Monitoring/Recordkeeping/Reporting Requirements

[A.A.C. R18-2-306.A.3.c]

(1) The Permittee shall maintain a record of the daily lower heating value of the fuel fired in the ICEs and gear arrestor engines. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the lower heating value of the fuel.

(2) The Permittee shall, for every 120 hours of continuous operation of the internal combustion engines, conduct periodic opacity monitoring, when in operation, as per Condition I.A.

c. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R18-2-719.B, C.1, and E.

3. Sulfur Dioxide (SO_2)

a. Emission Limitations and Standards

(1) The Permittee shall not cause to emit more than 1.0 pound of SO_2 per million Btu heat input when low sulfur oil is fired.

[A.A.C. R18-2-719.F]

(2) The Permittee shall not fire high sulfur oil (greater than 0.9 percent sulfur) in the ICEs.

[A.A.C. R18-2-719.H]

b. Monitoring/Recordkeeping/Reporting Requirements

[A.A.C.R18-2-306.A.3.c]

(1) The Permittee shall monitor the sulfur content of the fuel being combusted in the ICEs. The Permittee shall maintain records of the daily sulfur content and lower heating value of the fuel fired in the internal combustion engines. This may be accomplished by maintaining on record a copy of fuel supplier certifications that specify the sulfur content and lower heating value of the fuel.

[A.A.C. R18-2-306.A.3.c and -719.I]

(2) The Permittee shall report to the Director any daily period during

which the sulfur content of the fuel being fired in the machine exceeds 0.8 percent.

[A.A.C. R18-2-719.J and 306.A.3]

c. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R18-2-719.F, H, I, and J.

D. New Source Performance Standards (NSPS) Subpart IIII Requirements

1. Applicability

a. This Section applies to the emergency ICEs marked as 'Yes, Subpart IIII' under the NSPS Applicability column in the Equipment List, Attachment "C".

b. Emergency ICE Definition

[40 CFR 60.4219]

Except as provided in Condition VI.D.2.b, an emergency ICE shall be limited to emergency situations and required testing and maintenance only such as to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source) is interrupted, or used to pump water in the case of fire or flood, etc.

2. Operating Requirements

a. *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*

[40 CFR 60.4209(a), A.A.C. R18-2-306.A.3, and -331.A.3.a]

b. Operation of the ICE other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per year, is prohibited. These 50 hours of operation shall be counted towards the 100 hours per year provided for maintenance and testing.

[40 CFR 60.4211(f)]

c. There is no time limit on the use of emergency ICE in emergency situations.

[40 CFR 60.4211(f)]

d. The Permittee shall operate and maintain the ICE and the control device according to the manufacturer's written instructions. A copy of the instructions or procedures shall be kept onsite and made available to ADEQ upon request.

[40 CFR 60.4211(a)(1) and A.A.C. R18-2-306.A.3]

e. The Permittee shall only change those emission related settings that are permitted by the manufacturer.

[40 CFR 60.4211(a)(2)]

f. The Permittee shall meet the applicable requirements of 40 CFR Part 89, 94 and 1068.

[40 CFR 60.4211(a)(3)]

g. The Permittee may operate the stationary ICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The Permittee may petition the Administrator and the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

[40 CFR 60.4211(f)]

3. Fuel Requirements

[40 CFR 60.4207(b)]

The Permittee operating a stationary ICE shall use diesel fuel or bio-diesel that meets the requirements of non-road diesel fuel listed in 40 CFR 80.510(b) and listed below:

a. Sulfur content: 15 ppm maximum; and

b. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

4. Emission Limitations and Standards

[40 CFR 60.4205 (c) and Table 4]

a. Non-methane hydrocarbons (NMHC) and Nitrogen Oxides (NO_x)

The Permittee shall limit the combined emissions of NMHC and NO_x from the ICE to 10.5 g/Kw-hr.

b. Carbon Monoxide (CO)

The Permittee shall limit the emissions of CO from the ICE to 3.5 g/Kw-hr.

c. Particulate Matter (PM)

The Permittee shall limit the emissions of PM from the ICE to 0.54 g/Kw-hr.

5. Recordkeeping & Reporting Requirements

a. The Permittee shall maintain a copy of engine certification or other documentation demonstrating that the engine complies with the applicable standards in this permit, and shall make the documentation available to ADEQ upon request.

[40 CFR 60.4211(c)]

b. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

c. The Permittee shall keep records of fuel supplier specifications. The specifications shall contain name of the supplier, sulfur content, and cetane index or aromatic content in the fuel. These records shall be made available to ADEQ upon request.

[A.A.C.R18-2-306.A.3.c]

6. Permit Shield

[A.A.C.R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60. 4205(c), 4207(b), 4209(a), 4211(a)(1), (2) & (3), (c), & (f), 4214(b), and 4219.

E. National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ Requirements

1. Applicability

a. This Section is applicable to emergency ICEs marked as 'Yes, Subpart ZZZZ' in NESHAP applicability column in Equipment List, Attachment "C".

b. Emergency stationary ICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance.

[40 CFR 63.6675]

2. Operating Requirements

a. The Permittee shall operate and maintain the emergency fire pump engine and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator and the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605(b)]

b. The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c to 40 CFR Part 63 subpart ZZZZ apply.

[40 CFR 63.6625 (h)]

c. The Permittee shall operate each ICE according to the requirements in Conditions VI.E.2.c.(1) and (2). If the engine is not operated in accordance

with Conditions VI.E.2.c.(1) and (2), the engine will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

[40 CFR 63.6640 (f)]

(1) The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of the engine is limited to no more than 100 hours per year. The Permittee may petition the Administrator and the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that the Federal, State, or local standards require maintenance and testing beyond 100 hours per year. Copies of records shall be made available to ADEQ upon request.

(2) The Permittee may operate the emergency engines for up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the Permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.

d. *The Permittee shall install a non-resettable hour meter on the emergency fire pump engine*. [40 CFR 63.6625(f) and A.A.C. R18-2-331.A.3.a]

e. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program as described in 40 CFR 63.6625(i) shall be completed.

[40 CFR 63.6603(a), Table 2d of Subpart ZZZZ, and 63.6625(i)]

f. The Permittee shall inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

g. The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

h. The Permittee shall operate and maintain the emergency fire pump engine according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)]

3. Recordkeeping Requirements

a. The Permittee shall keep records of the hours of operation of each emergency engine that is recorded through the non-resettable hour meter. Records shall include the date, start and stop times, hours spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 63.6655(f)]

b. If the Permittee elects to implement the oil analysis program described in 40 CFR 63.6625(i), the Permittee shall keep records of the parameters that are analyzed and the results of the oil analysis and the oil changes for the engine.

[40 CFR 63.6625(i)]

c. The Permittee shall keep records of the maintenance conducted on the emergency fire pump that demonstrates operation and maintenance in accordance with the maintenance plan.

[40 CFR 63.6655(e)]

d. The Permittee shall document the hours spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[40 CFR 63.6655(f)]

4. Compliance Requirements

[40 CFR 63.6590(c)]

The Permittee, for the emergency ICE subject to NSPS Subpart IIII shall comply with the requirements of NESHAP ZZZZ by meeting requirements of NSPS Subpart IIII.

5. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with 40

CFR 63.6590 (c), 6595 (a)(1), 6603(a), 6605(b), 6625(e), (f), (i), 6640(f), 6655(e) & (f), 6675, and Table 2d of 40 CFR Subpart ZZZZ.

VII. SPARK IGNITION STANDBY ENGINE SUBJECT TO NSPS SUBPRT JJJJ

A. This Section applies to the spark ignition standby engine identified as subject to 40 CFR Part 60 NSPS Subpart JJJJ in the Equipment List, Attachment "C", located at the SGS Main Gate guardhouse.

B. Emission standards

1. Exhaust emissions from the generator engine under this Section shall not exceed 8.0 g/kW-hr of $HC+NO_x$ and 610 g/kW-hr of CO.

[40 CFR 60. 4231(a), 4233(a) and 1054.105(a)]

2. The Permittee shall operate and maintain the generator engine achieving the emission standards as required in Condition VII.B.1 over the entire life of the engine.

[40 CFR 60. 4234]

C. Air Pollution Control Requirements

[40 CFR 60.4243(g)]

If the generator engine is equipped with three-way catalysts or non-selective catalytic reduction that applies air-to-fuel ratio controllers, the controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

D. Compliance requirements

[40 CFR 60.4243(a)]

1. The Permittee shall comply with the emission standards specified in Condition VII.B.1 by purchasing an engine certified to the emission standards for the same engine class and maximum engine power.

2. The Permittee shall operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions.

3. The Permittee shall keep records of conducted maintenance to demonstrate compliance. No performance testing is required for the purpose of compliance demonstration.

4. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the engine shall not be considered out of compliance.

5. If the Permittee elects to not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine shall be considered a non-certified engine, and the Permittee shall demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required for the purpose of compliance demonstration.

E. Recordkeeping Requirements

[40 CFR 60.4245(a)]

The Permittee shall keep the following records:

1. Maintenance conducted on the engine.

2. Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR part 1054.

3. In case the generator engine is not a certified engine or is a certified engine operating in a noncertified manner and subject to Condition VI.D.5, documentation that the engine meets the emission standards.

F. Permit Shield

[A.A.C. R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with 40 CFR 60.4231(a), 4233(a), 4234, 4243(a), (g), 4245(a), and 1054.105(a).

VIII. COOLING TOWERS

A. Applicability

This Section applies to Cooling Towers described in Condition #s I.D.3 and 4, and Equipment List, Attachment "C".

B. Operating Limitations

1. Gaseous or Odorous Materials

a. The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

b. Where a stack, vent, or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce, or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

2. Flow Rate Limitation

[A.A.C. R18-2-306.A.2 and -406.A.4]

a. The Permittee shall not cause, allow or permit the total circulating water flow rate in CT 1 or CT 2 to exceed 176,000 gallons per minute, total for the thirteen cells in each tower.

b. The Permittee shall not cause, allow or permit the total circulating water flow rate in CT 3 or CT 4 to exceed 200,000 gallons per minute.

3. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R-18-730.D and G.

C. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Particulate Matter

(1) The Permittee shall not discharge PM into the atmosphere in any one hour from any CT in total quantities in excess of the amounts calculated by the following equation:

[A.A.C. R18-2-730.A.1 and B]

$E = 55.0\ P^{0.11} - 40$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(2) The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

(3) The Permittee shall not discharge into the atmosphere from CT 1 or CT 2 any gases which contain PM in excess of 108.4 lbs per hour, total for the thirteen cells in each tower.

[A.A.C. R18-2-406.A.4]

(4) The Permittee shall not discharge into the atmosphere from CT 3 or CT 4 any gases which contain PM in excess of 12.32 lbs per hour, total for each tower.

[A.A.C. R18-2-406.A.4]

b. Opacity

(1) The Permittee shall not cause, allow or permit to be emitted into the atmosphere any visible emissions in excess of 20 percent opacity measured in accordance with EPA Reference Method 9.

[A.A.C.R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of any visible emissions requirement, the exceedance shall not constitute a violation of the opacity limit specified in Condition VIII.C.1.b. (1).

[A.A.C. R18-2-702.C]

2. Air Pollution Control Requirements

a. *The Permittee shall not cause, allow or permit the operation of CTs without properly maintaining the drift eliminators.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. *The drift eliminators for CT 1 and CT 2 shall be designed for a total liquid drift not to exceed 0.005 percent of the circulating water flow rate.*

[A.A.C. R18-2-306.A.2, -331.A.3.e, and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

c. *The drift eliminators for CT 3 and CT 4 shall be designed for a total liquid drift not to exceed 0.0005 percent of the circulating water flow rate.*

[A.A.C. R18-2-306.A.2, -331.A.3.e, and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Particulate Matter

[A.A.C. R18-2-306.A.3.c]

The Permittee shall comply with the following requirements:

(1) The Permittee shall maintain readily available records of the design and vendor-guaranteed maximum total liquid drift of each CT.

(2) The Permittee shall maintain readily available records of the design maximum pumping capacity of each of the water pumps serving the CTs.

(3) The Permittee shall measure and record twice per month the Total Dissolved Solids (TDS) of the circulating water used in each CT. Solids measurement shall be performed using EPA's Residue Filterable Method 160.1 (in Methods for the Chemical Analysis of Water and Wastes; EPA-600/4-79-020; U.S. EPA, Environmental Monitoring and Systems Laboratory, Cincinnati, Ohio) or equivalent method as approved by the Director.

(4) The Permittee shall calculate twice per month the particulate matter emission rate from each CT. Each CT emission rate calculation shall be calculated using the vendor-guaranteed maximum total liquid drift for the CT and drift eliminators, the design maximum pumping capacity for the CT, and the measured TDS of the circulating water in the CT. A calculated particulate matter emission rate exceeding the limitation in Conditions VIII.C.1.a (3) and (4) shall constitute a period of excess emissions.

b. Opacity

[A.A.C.R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from cooling towers, when in operation, in accordance with Condition I.A.

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R-18-2-702.B.3, C, -730.A.1 and B.

IX. COAL PREPARATION PLANT

A. Applicability

This Section applies to the Coal Preparation Plants described in Equipment List, Attachment "C".

B. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity

(1) *The Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system (except for open storage piles), or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.*

[40 CFR 60.252(c) and A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions are defined by underline and italics]

(2) *The Permittee shall not cause to be discharged into the atmosphere from any coal preparation plant fabric filter baghouse any gases which exhibit 20 percent opacity or greater*. This emission standard shall not apply during periods of startup, shutdown, or malfunction (Condition #s I.D.8, 12, and 14).

[40 CFR 60.252(c) and A.A.C. R18-2-331.A.3.f]
[Material Permit Conditions are defined by underline and italics]

(3) *The Permittee shall not cause to be discharged into the atmosphere from any coal preparation plant fabric filter baghouse installed as part of the Unit 3 and Unit 4 modernization any gases which exhibit 10 percent opacity or greater*. This emission standard shall not apply during periods of startup, shutdown, or malfunction (Condition #s I.D.8, 12, and 14).

[40 CFR 60.252(c), A.A.C. R18-2-331.A.3.f, and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

(4) *The Permittee shall not cause to be discharged into the atmosphere from any coal storage pile emissions which exhibit 40 percent opacity or greater.*

[A.A.C. R18-2-331.A.3.f, -406.A.4, and-614]
[Material Permit Conditions are defined by underline and italics]

b. Particulate Matter

The Permittee shall not cause to be discharged into the atmosphere from any coal preparation plant fabric filter baghouse installed as part of the Unit 3 and Unit 4 modernization, any gases containing PM in excess of 0.01 grains per dry standard cubic foot.

[A.A.C. R18-2-406.A.4]

2. Air Pollution Control Requirements

a. *At all times when the system is in operation, including periods of startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12, and 14), the Permittee shall, to the extent practicable,* maintain and *operate the baghouses to capture PM emissions associated with coal preparation and mixing in a manner consistent with good air pollution control practices.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall operate* and maintain *at all times a covered conveyor belt transfer system.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

c. *The Permittee shall utilize water spray with surfactant as necessary to control PM emissions at the active and emergency coal storage pile(s).*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

d. *The Permittee shall utilize enclosures and water spray with surfactant as necessary to control PM emissions at the rail unloading area and the emergency reclaim hopper.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

e. *The Permittee shall utilize enclosures and fabric filter baghouses to control PM emissions at all coal handling locations other than the active coal storage pile(s) and the locations listed in Conditions VIII.B.2.c & d. The locations controlled with enclosures and fabric filter baghouses shall include the following*:

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

(1) *Transfer towers*;

(2) *Crusher towers*;

(3) *Discharge hoppers; and*

(4) *Coal storage silos*.

3. Monitoring/Recordkeeping/Reporting Requirements

Opacity Monitoring

[A.A.C. R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from coal preparation plant, coal storage pile, and the baghouses, when in operation, in accordance with Condition I.A.

4. Testing for PM

For the baghouses, if an opacity exceedance is detected during the course of the weekly visible emissions survey and the Permittee is unable to identify adjustments or repairs necessary to address the opacity violation within 72 hours, the Permittee shall conduct a performance test for those baghouses within 180 days to show compliance with the PM limit identified in Condition IX.B.1.b.

[A.A.C. R18-2-306.A.3.c and -406.A.4]

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be compliance with 40 CFR 60.252(c).

X. REFINED COAL FACILITIES

A. Applicability

This Section applies to two refined coal facilities identified in Equipment List, Attachment "C".

B. Opacity

1. Emission Limitation/Standards

[A.A.C. R18-2-702.B.3]

The Permittee shall not cause, allow or permit the opacity of any plume or effluent from the refined coal facilities to exceed 20 percent.

2. Monitoring/Recordkeeping/Recording

[A.A.C. R 18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from the refined coal facilities, when in operation, in accordance with Condition I.A.

3. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R-18-2-702.B.3.

C. Particulate Matter

1. Emission Limitation/Standards

[A.A.C. R18-2-730.A.1.a]

a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one hour from the refined coal facilities in total quantities in excess of the amounts calculated by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

b. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Air Pollution Controls

When the refined coal facilities are operational, the Permittee shall *install*, maintain, and *operate the baghouses associated with refined coal facilities in accordance with manufacturer's specifications and in a manner consistent with good air pollution control practices*.

[A.A.C. R18-2-306.A.2, -331.A.3.c, and e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting

a. The manufacturer's specifications of the baghouses shall be on file and shall be readily available for inspection by the Department.

[A.A.C. R18-2-306.A.2]

b. The Permittee shall maintain records of emissions related maintenance performed on the refined coal facilities.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R-18-2-730.A.1, and B.

XI. LIME HANDLING – UNIT 1 AND UNIT 2

A. Applicability

This Section applies to Lime Handling Unit 1 and Unit 2 as described in Attachment "C".

B. Particulate Matter (PM/PM10) and Opacity

1. Emission Limitations/Standards

a. Opacity

[A.A.C. R18-2-702.B.3]

The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any lime handling operation any visible emissions in excess of 20 percent opacity measured in accordance with EPA Reference Method 9.

b. Particulate Matter

[A.A.C. R18-2-730.A.1 and B]

The Permittee shall not cause, allow or permit the discharge of PM into the atmosphere in any one hour from any lime handling operation in total quantities in excess of the amounts calculated by the following equations:

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0\ P^{0.11} - 40$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(3) The total process weight from all similar units employing a similar

type process shall be used in determining the maximum allowable emission of PM.

2. Air Pollution Control Requirements

At all times when the system is in operation, the Permittee shall maintain and operate *the enclosure system and baghouses used to capture PM emissions associated with lime handling system in a manner consistent with good air pollution control practices.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Opacity

[A.A.C. R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from lime handling including all the exposed transfer points, the storage pile, and the baghouse exhaust, when in operation, in accordance with Condition I.A.

b. Particulate Matter

[A.A.C. R18-2-306.A.3.c]

(1) The Permittee shall maintain and operate the baghouses in accordance with good operating practices. These specifications shall be on file and be readily available for inspection by the Director.

(2) The Permittee shall maintain records of emissions related maintenance performed on the baghouses.

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C.R-18-2-702.B.3, -730.A.1, and B.

XII. LIME HANDLING - UNIT 3 AND UNIT 4

A. Applicability

This Section applies to Lime Handling– Unit 3 and Unit 4 as described in Equipment List, Attachment "C".

B. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity

(1) *The Permittee shall not cause to be discharged into the atmosphere from any lime handling operation any visible emissions in excess of 20 percent opacity measured in accordance*

with EPA Reference Method 9.

[A.A.C. R18-2-331.A.3.f, -406.A.4, and -702.B.3]
[Material Permit Conditions are defined by underline and italics]

(2) *The Permittee shall not cause to be discharged into the atmosphere from any lime handling system fabric filter baghouse any visible emissions in excess of 10 percent opacity measured in accordance with EPA Reference Method 9. This emission standard shall not apply during periods of startup, shutdown, or malfunction (as defined in Condition #s I.D.8, 12. and 14).*

[A.A.C. R18-2-331.A.3.f, -406.A.4, and -702.B.1]
[Material Permit Conditions are defined by underline and italics]

b. Particulate Matter

(1) The Permittee shall not cause to be discharged into the atmosphere from any lime handling system fabric filter baghouse any gases containing PM in excess of 0.01 grains per dry standard cubic foot.

[A.A.C. R18-2-406.A.4]

(2) The Permittee shall not cause, allow or permit the discharge of PM into the atmosphere in any one hour from any lime handling operation in total quantities in excess of the amounts calculated by the following equations:

[A.A.C. R18-2-730.A.1 and B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(b) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0\ P^{0.11} - 40$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(c) The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

2. Air Pollution Control Requirements

a. *The Permittee shall utilize enclosures and fabric filter baghouses to control PM emissions at all lime handling locations.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

b. *At all times when the lime handling system is in operation, including periods of startup, shutdown, and malfunction (as defined in Condition #s I.D.8, 12, and 14), the Permittee shall* maintain and *operate the associated enclosures and fabric filter baghouses in a manner consistent with good air pollution control practices.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Opacity

[A.A.C.R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from lime handling system, when in operation, in accordance with Condition I.A.

b. Particulate Matter

[A.A.C.R18-2-306.A.3.c]

The Permittee shall maintain records of emissions related maintenance performed on the lime handling system fabric filter baghouses.

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C.R-18-2-702.B.3, -730.A.1, and B.

XIII. FLY ASH HANDLING - UNIT 1 AND UNIT 2

A. Applicability

This Section applies to Fly Ash Handling-Unit 1 and Unit 2 as described in Equipment List, Attachment "C".

B. Particulate Matter (PM/PM_{10}) and Opacity

1. Emission Limitations/Standards

a. Opacity

The Permittee shall not cause, allow or permit to be emitted any emissions

into the atmosphere from the fly ash handling operation in excess of 20 percent opacity measured in accordance with EPA Reference Method 9.

[A.A.C. R18-2-702.B.3]

b. Particulate Matter

[A.A.C. R18-2-730.A.1 and B]

The Permittee shall not cause, allow or permit the discharge of PM into the atmosphere in any one hour from any fly ash handling operation in total quantities in excess of the amounts calculated by the following equations:

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0\ P^{0.11} - 40$

Where E and P are as defined above.

(3) The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

2. Air Pollution Control Requirements

a. *Fly ash shall be collected from the baghouses hoppers, and transported to the ash handling system.*

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

b. *The emissions from dry fly ash unloading shall be ducted through a Dust Filter Module. This module shall be* maintained and *operated in accordance with manufacturer's specifications.* These specifications shall be on file and shall be readily available for inspection by the Department.

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

c. *The emission from the vent of the fly ash storage silos shall be ducted to the flue gas system before entering the baghouses.*

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

d. The Permittee shall process transport, load/unload, store, and dispose of the Irvington Generating Station (IGS) fly ash in compliance with the following:

(1) *The Permittee shall operate* and maintain *valves and piping at Units 1 and 2 fly ash storage silos necessary to provide for a sealed transfer of the IGS fly ash to the silos.*

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

(2) *Upon receiving the IGS fly ash at the SGS facility and thereafter, the Permittee shall not cause, permit, or allow the ash haul road to be used by vehicular or non-vehicular traffic without the use of effective oil and chip surface with appropriate load-bearing base as required to control dust emissions from the ash haul road.*

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

(3) *Upon receiving the IGS fly ash at the SGS facility and thereafter, the Permittee shall not cause, permit, or allow the ash haul road to be used by vehicular or non-vehicular traffic unless the ash haul road has been watered within the most recent 24 hours. This requirement does not apply in the event that the ash haul road has received measurable precipitation within the most recent 24 hours.*

[A.A.C. R18-2--306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

3. Monitoring/Recordkeeping/Reporting Requirements

a. Opacity

[A.A.C. R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from fly ash handling system, when in operation, in accordance with Condition I.A.

b. Dust Filter Module

[A.A.C.R18-2-306.A.3.c]

The Permittee shall maintain records of emissions related maintenance performed on the Dust Filter Module.

4. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C.R-18-2-702.B.3, -730.A.1, and B.

XIV. FLY ASH HANDLING - UNIT 3 AND UNIT 4

A. Applicability

This Section applies to Fly Ash Handling – Unit 3 and Unit 4 as described in Equipment List, Attachment "C".

B. Emission Limits and Standards

1. Opacity

a. *The Permittee shall not cause to be discharged into the atmosphere from any fly ash handling operation any visible emissions in excess of 20 percent opacity measured in accordance with EPA Reference Method 9.*

[A.A.C. R18-2-331.A.3.f, -406.A.4, and -702.B.3]
[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall not cause to be discharged into the atmosphere from any fly ash handling system fabric filter baghouse any visible emissions in excess of 10 percent opacity measured in accordance with EPA Reference Method 9. This emission standard shall not apply during periods of startup, shutdown, or malfunction (Condition #s I.D.8, 12, and 14)*

[A.A.C. R18-2-331.A.3.f and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

2. Particulate Matter

a. The Permittee shall not cause to be discharged into the atmosphere from any fly ash handling system fabric filter baghouse any gases containing PM in excess of 0.01 grains per dry standard cubic foot.

[A.A.C. R18-2-406.A.4]

b. The Permittee shall not cause, allow or permit the discharge of PM into the atmosphere in any one hour from any fly ash handling operation in total quantities in excess of the amounts calculated by the following equations:

[A.A.C. R18-2-730.A.1 and B]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

(2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0\ P^{0.11} - 40$

Where E and P are as defined above.

(3) The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

C. Air Pollution Control Equipment

1. *The Permittee shall collect fly ash from the Unit 3 and Unit 4 fabric filter baghouse hoppers, and any other hoppers that may be installed for fly ash collection, and shall transport the fly ash to the fly ash handling system.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

2. *The Permittee shall utilize enclosures and fabric filter baghouses to control particulate matter emissions at all Unit 3 and Unit 4 fly ash handling locations other than the fly ash silo truck loading and the ash dump.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

3. *At all times when the fly ash handling system is in operation, including periods of startup, shutdown, and malfunction (as defined in Condition I.D.8, 12, and 14), the Permittee shall maintain and operate the enclosure systems and the fly ash handling system baghouses in a manner consistent with good air pollution control practices.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

D. Monitoring/Recordkeeping/Reporting Requirements

1. Opacity

[A.A.C.R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from fly ash handling system, when in operation, in accordance with Condition I.A.

2. Particulate Matter

The Permittee shall maintain records of emissions related maintenance performed on the fabric filter baghouses.

[A.A.C. R18-2-306.A.3.c]

E. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C.R-18-2-702.B.3, -730.A.1, and B.

XV. ACTIVATED CARBON SILO

Particulate Matter and Opacity

A. Emission Limitations

1. The Permittee shall not cause, allow or permit the opacity of visible emissions exiting from the activated carbon silo to exceed 20 percent as measured by EPA Reference Method 9.

[A.A.C. R18-2-702.B.3]

2. The Permittee shall not cause, allow or permit the emission of particulates matter from the activated carbon silo into the atmosphere in quantities greater than the amount calculated by the following equation:

$E = 4.10 * P^{0.67}$

Where:

E = the maximum allowable particulate emission rate in pounds-mass per hour

P = the process weight rate in tons-mass per hour

[A.A.C. R18-2-730.A.1.a]

3. The total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

B. Air Pollution Control Requirements

At all times when the system is in operation, including periods of startup, shutdown, and malfunction (as defined in Condition #s I.D.8,12, and 14), the Permittee shall, to the extent practicable, maintain and operate a vent filter to capture particulate matter emissions associated with the activated carbon silo in a manner consistent with good air pollution control practices.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material Permit Conditions are defined by underline and italics]

C. Monitoring/Recordkeeping/Reporting Requirements

Opacity Monitoring

[A.A.C. R18-2-306.A.3.c]

Each week, the Permittee shall monitor visible emissions from activated carbon silo, when in operation, in accordance with Condition I.A.

D. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C.R-18-2-702.B.3, -730.A.1.a, and B.

XVI. EVAPORATIVE WATER SPRAY SYSTEMS (EWS)

A. General Requirements

1. The Permittee shall maintain and operate, as appropriate, four evaporative water spray systems (EWS) at the Evaporative Ponds East and West (for Unit 3) and Evaporative Ponds 1, 2, and 3 (for Units 1 and 2) to address any freeboard issues.
[A.A.C. R18-2-402.A]

2. The Permittee shall maintain and operate the EWS according to the manufacturer's specifications.
[A.A.C. R18-2-406.A.4]

3. The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under his control in such quantities as to cause air pollution.
[A.A.C. R18-2-730.D]

4. Materials including solvents or other volatile compounds, paints, acids, alkalis, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or other equipment shall be mandatory.
[A.A.C. R18-2-730.F]

5. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

6. Opacity Emission Standard
[A.A.C. R18-2-702.B.3 and C]

The Permittee shall not cause or allow to be discharged into the atmosphere from the EWS any emissions which exhibits opacity greater than 20 percent, as determined by Method 9. If the presence of uncombined water is the only reason for an exceedance of the opacity standard, the exceedance shall not constitute a violation.
[A.A.C. R18-2-730.G]

7. Monitoring and Recordkeeping Requirements
[A.A.C. R18-2-306.A.3.c and -306.A.4.a]

a. At the end of each quarter the Permittee shall calculate the total hours of operation of each spray system for the preceding four quarters.

b. The Permittee shall perform a quarterly inspection of each spray nozzle to ensure their proper functioning and physical integrity. The Permittee shall keep a record of the date and result of each inspection and any corrective action performed.

8. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Section shall be deemed compliance with A.A.C. R18-2-702.B.3, C, -730.D, F, and G.

XVII. FUGITIVE DUST REQUIREMENTS

A. Applicability

This Section applies to any non-point source of fugitive dust in the facility.

B. Particulate Matter and Opacity

Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations/Standards

The Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40 percent opacity measured in accordance with the Arizona Testing Manual, Reference Method 9.

[A.A.C. R18-2-614]

2. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

a. For open areas, use approved dust suppressants, adhesive soil stabilizer, paving, covering, detouring, or wetting agents on, or bar access to open areas during construction operations, repair operations, demolition activities, clearing operations, and leveling operations, or when any earth is moved or excavated or other acceptable means.

[A.A.C. R18-2-604.A]

b. For open areas, use approved dust suppressants, adhesive soil stabilizer, or paving on, or bar access to driveways, parking areas, and vacant lots where motor vehicular activity occurs or other acceptable means.

[A.A.C. R18-2-604.B]

c. For Roadways & Streets, use approved dust suppressants, temporary paving, detouring or wetting agents when a roadway is repaired, constructed, or reconstructed or by other reasonable means.;

[A.A.C. R18-2-605.A]

d. For Roadways & Streets, use dust suppressants, spray bars, hoods, wetting agents, or cover the load adequately when transporting material likely to give rise to airborne dust or other reasonable precautions;

[A.A.C. R18-2-605.B]

e. For Material Handling, use spray bars, hoods, wetting agents, dust suppressants, or cover when crushing, handling, or conveying material that is likely to give rise to airborne dust;

[A.A.C. R18-2-606]

f. For Storage Piles, adequately cover, or use wetting agents, chemical stabilization, or dust suppressants when stacking, piling, or otherwise storing organic or inorganic dust producing material;

[A.A.C. R18-2-607.A]

g. For Storage Piles, operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material and with the use of spray bars and wetting agents;

[A.A.C. R18-2-607.B]

h. Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-306.A.3.c]

3. Air Pollution Control Requirements

a. *The Permittee shall not cause, permit, or allow the ash haul road to be used by vehicular or non-vehicular traffic without the use of an effective oil and chip surface with appropriate load-bearing base as required to control dust emissions from the ash haul road.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

b. *The Permittee shall not cause, permit, or allow the ash haul road to be used by vehicular or non-vehicular traffic unless the ash haul road has been watered within the most recent 24 hours. This requirement does not apply in the event that the ash haul road has received measurable precipitation within the most recent 24 hours.*

[A.A.C. R18-2-331.A.3.e and -406.A.4]
[Material Permit Conditions are defined by underline and italics]

c. Haul Roads and Storage Piles

Water, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

4. Monitoring and Recordkeeping Requirements

a. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

The Permittee shall maintain records of the dates on which any of the activities listed in Conditions XVII.B.1.b.(2) (a) through (h) were performed and the control measures that were adopted.

[A.A.C. R18-2-306.A.3.c]

b. Opacity Monitoring Requirements

[A.A.C.R18-2-306.A.3.c]

The Permittee shall, every two weeks, monitor visible emissions from fugitive dust sources in accordance with Condition I.A.

c. Dust Control Practice

[A.A.C.R18-2-306.A.3.c]

The Permittee shall maintain and implement a site dust control practice. The Permittee shall keep the dust control practice readily available for inspection. The dust control practice will be a living document that will be updated as needed to allow for practical changes at the facility.

5. Permit Shield

[A.A.C.R18-2-325]

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, and -614.

XVIII. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.109.

[A.A.C. R18-2-801.A]

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. Off-Road Machinery

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers, and other construction and mining machinery not normally driven on a completed public roadway.

[A.A.C. R18-2-802.A and -802.B]

b. Roadway and Site Cleaning Machinery

(1) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

[A.A.C. R18-2-804.A]

(2) The Permittee shall take reasonable precautions, such as the use of dust suppressants, before the cleaning of a site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by

trucking or earth moving equipment, erosion by water or by other means.

[A.A.C. R18-2-804.B]

c. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

[A.A.C. R18-2-801.B]

2. Recordkeeping Requirement

The Permittee shall keep a record of all emissions related maintenance activities performed on the Permittee's mobile sources stationed at the facility as per manufacturer's specifications.

[A.A.C. R18-2-306.A.5.a]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-801, -802, and -804.

[A.A.C. R18-2-325]

XIX. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

(1) wet blasting;

(2) effective enclosures with necessary dust collecting equipment; or

(3) any other method approved by the Director.

[A.A.C. R18-2-726]

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity, as measured by EPA Reference Method 9.

[A.A.C. R18-2-702.B.3]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

a. The date the project was conducted;

b. The duration of the project; and

c. Type of control measures employed.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

[A.A.C.R18-2-325]

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

(1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C.R18-2-727.A]

(2) The Permittee or their designated contractor shall not either:

(a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.

[A.A.C.R18-2-727.B]

(3) For the purposes of Condition XIX.B.1.a.(2), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Conditions XIX.B.1.a.(3)(a) through (c), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

(a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

(c) A combination of ethylbenzene, ketones having branched

hydrocarbon structures, trichloroethylene or toluene: 20 percent.

[A.A.C.R18-2-727.C]

(4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Conditions XIX.B.1.a.(3)(a) through (c), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

(5) Visible emissions from spray painting operations shall not have opacity greater than 20 percent, measured in accordance with EPA Reference Method 9.

[A.A.C. R18-2-702.B.3]

b. Monitoring and Recordkeeping Requirements

(1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:

(a) The date the project was conducted;

(b) The duration of the project;

(c) Type of control measures employed;

(d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and

(2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XIX.B.1.b(1).

[A.A.C. R18-2-306.A.3.c]

c. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C.R18-2-702.B.3 and -727.

[A.A.C.R18-2-325]

C. Solvent Cleaning/ Degreasing, and Dipping Operations

1. Emission Limits and Standards

[A.A.C. R18-2-730.F]

The Permittee shall process, store, use, and transport materials including solvents or volatile compounds in such a manner and by such means that they will not evaporate, leak, escape, or be otherwise discharged into the atmosphere so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and usage of such control methods, devices, or equipment shall be mandatory.

2. Permit Shield

[A.A.C.R18-2-325]

Compliance with the Conditions of this Part shall be deemed compliance with A.A.C.R-18-2-730.F.

D. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

The Permittee shall comply with all of the requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.8]

2. Monitoring and Recordkeeping Requirement

The Permittee shall keep all required records in a file. The required records shall include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-1101.A.8.

[A.A.C. R18-2-325]

ATTACHMENT "C": EQUIPMENT LIST
TUCSON ELECTRIC POWER COMPANY – SPRINGERVILLE GENERATING STATION

Equipment	Description	Capacity	Serial Number	Model	Date of Commercial Operation/ Manufacture	Applicability of	
						NSPS	NESHAP
Unit 1 Boiler	Tangentially fired, single drum, reheat, controlled circulation sub critical steam generating unit	387 MW, net	SGS-8-1-004	Combustion Engineering Inc.	1/30/78 (Commenced construction) 5/1/85 (Commercial operating)	Yes, 40 CFR Subpart D	No
Unit 2 Boiler	Tangentially fired, single drum, reheat, controlled circulation sub critical steam generating unit	406 MW, net	SGS-8-1-004	Combustion Engineering Inc.	1/30/78 (Commenced construction) 6/1/90 (Commercial operating)	Yes, 40 CFR Subpart D	No
Unit 3 Boiler	Steam generating unit wall fired, natural circulation, sub critical, single drum	417 MW, net	65-100019-00	Foster Wheeler	...7/20/2006 (Commenced operating)	Yes, 40 CFR Subpart Da	No
Unit 4 Boiler	Steam generating unit wall fired, natural circulation, sub critical, single drum	426 MW, net	65-119154-00	Foster Wheeler	...12/17/2009 (Commenced operating)	Yes, 40 CFR Subpart Da	NA
Auxiliary Boiler	Oil fired with superheater for two unit cold start-up	113 MMBtu/hr	AS-5-2-001	Zurn Industries	01/30/78 (Commenced construction) 1984 (Commercial operating	No	NA
Emergency diesel generator Unit 1 and Unit 2	Diesel generator with 650 gallon fuel oil tank	1300 HP	16E0007459	Neil Detriot – 91637306	5/1/85 (Commercial operating)	No	NA

Equipment	Description	Capacity	Serial Number	Model	Date of Commercial Operation/ Manufacture	Applicability of	
						NSPS	NESHAP
Emergency Diesel Fire Pump for Unit 1 and Unit 2	Cummins 4 cycle, in-line, 6 cylinder diesel	340 HP @ 2100 rpm	60507610	NT855-F4	1999 (manufacture)	No	Yes, Subpart ZZZZ
Emergency Diesel Fire Pump for Unit 3	Caterpillar	375 HP	6TB22509	3406	2004 (manufacture)	No	Yes, Subpart ZZZZ
Emergency Diesel Fire Pump for Unit 4	John Deere 4 cycle, in-line, 4 cylinder diesel	475 HP	RG6125A016 084	6125AF001	2007 (manufacture)	Yes, Subpart IIII	Yes, Subpart ZZZZ
Cooling Tower 1	Steam unit cooling tower	Recirculation rate 176,000 gal/min	PGS-9-1	NA	NA	No	NA
Cooling Tower 2	Steam unit cooling tower	Recirculation rate 176,000 gal/min	PGS-9-1	NA	NA	No	NA
Cooling Tower 3	Steam unit cooling tower	Recirculation rate 200,000 gal/min	ICT8463-CWHH31-5-11-28	CWHH31-5-11-28	NA	No	NA
Cooling Tower 4	Steam unit cooling tower	Recirculation rate 200,000 gal/min	ICT-CW8832-5-28-11	CW8832-5-28-11	NA	No	NA

Equipment	Description	Capacity	Serial Number	Model	Date of Commercial Operation/ Manufacture	Applicability of	
						NSPS	NESHAP
Coal Preparation Plant	Storage silos, unloading/ sampling system, crushers, conveyor, transfer points, transfer towers, and reclaim	8,200,000 tons/yr	Figure 1-1 Site Layout	NA	NA	Yes, 40 CFR Subpart Y	NA
Lime Handling Unit 1 and Unit 2	Storage silos, lime unloading, lime feed bins	166,400 ton/yr	AS-6-1-001 AS-6-2-001 AS-6-3-001	NA	NA	No	NA
	One hopper and three completely enclosed belts	24” wide by 256’7 1/16” long -30” wide by 121’10 9/16” long -24” wide by 31’4 1/16” long	NA	Sveldala Eastern Made	NA	No	NA
Lime Handling Unit 3 and Unit 4	Storage silos, lime unloading, lime feed bins	62,400 ton/yr	NA	NA	NA	No	NA
Ash Handling Unit 1 Unit 2	--	--	NA	NA	NA	No	NA
Ash Handling Unit 3 Unit 4	Storage silos, ash truck loading	836,182 ton/yr	NA	NA	NA	No	NA

Equipment	Description	Capacity	Serial Number	Model	Date of Commercial Operation/ Manufacture	Applicability of	
						NSPS	NESHAP
SGS Unit 1 & 2 Refined Coal Delivery System -	Includes: Control facility, up to 10 dry storage pigs/guppies, 2 surge bins, 2 screw/slide conveyors and water sprays at delivery point.	TBD	TBD	TBD	Est. 2nd Quarter 2015	NA	NA
SGS Unit 3 Refined Coal Delivery System -	Includes: Control facility, up to 10 dry storage pigs/guppies, 2 surge bins, 2 screw/slide conveyors and water sprays at delivery point.	TBD	TBD	TBD	TBD	NA	NA
DCL CFM Dust Filter Modlue	Pulse-jet cleaned, cartridge type in-line dust collector	Filtering Area: 329 sf.	NA	CFM 330 DCL: distributed by Process & Power/Texas, Inc.	TBD	NA	NA
Nonpoint sources	--	--	--	--	--	NA	NA
Sand Blasting	--	--	--	--	--	NA	NA
Spray Painting	--	--	--	--	--	NA	NA
Mobile Sources	--	--	--	--	--	NA	NA
Demolition and Renovation	--	--	--	--	--	NA	NA

Equipment	Description	Capacity	Serial Number	Model	Date of Commercial Operation/ Manufacture	Applicability of	
						NSPS	NESHAP
Air Conditioner Maintenance	--	--	--	--	--	NA	NA
Units 1, 2, and 3 diesel fuel storage tank	Vertical tank with fixed cone roof	25,170 bbl	NA	NA	1973	NA	NA
Standby Guardhouse Engine	Kohler Generator 14RESAL with Automatic Transfer Switch	25 HP	TBD	CH740	TBD	Yes, 40 CFR Part 60 Subpart JJJJ	NA

Continuous Emission Monitors

Steam Unit	NO_x Monitor	SO_2 Monitor	CO Monitor	Diluent Monitor	Opacity Monitor	Flow Monitor
Unit 1	NO_x - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	SO_2- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	NA	CO_2 – Installed/Certified PLC-Installed/Certified DAHS- Installed/Certified	Opacity - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	Flow – Installed/Certified PLC – Installed/Certified DAHS-Installed/Certified

Steam Unit	NO_x Monitor	SO_2 Monitor	CO Monitor	Diluent Monitor	Opacity Monitor	Flow Monitor
Unit 2	NO_x - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	SO_2- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	NA	CO_2 – Installed/Certified PLC-Installed/Certified DAHS- Installed/Certified	Opacity - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	Flow – Installed/Certified PLC – Installed/Certified DAHS-Installed/Certified
Unit 3	NO_x - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	SO_2- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	CO- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	CO_2 – Installed/Certified PLC-Installed/Certified DAHS- Installed/Certified	Opacity - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	Flow – Installed/Certified PLC – Installed/Certified DAHS-Installed/Certified
Unit 4	NO_x - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	SO_2- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	CO- Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	CO_2 – Installed/Certified PLC-Installed/Certified DAHS- Installed/Certified	Opacity - Installed/Certified PLC- Installed/Certified DAHS- Installed/Certified	Flow – Installed/Certified PLC – Installed/Certified DAHS-Installed/Certified

Air Pollution Control Equipment

Equipment	Description	Size	Serial Number	Model	Date of Commercial Operation/ Manufacture
Sulfur Dioxide Removal System for Unit 1	Dry flue gas desulfurization for Steam Unit 1	150 GPM each rotary atomizer (3), 11,500 RPM, 600 HP drive motor with a 2 HP oil pump motor per unit		Joy/Niro is now owned by B&W	1/30/78 (Commenced construction)
Sulfur Dioxide Removal System for Unit 1	Dry flue gas desulfurization for Steam Unit 1	(1) 150 gpm,11,500 RPM, drive, 600 HP drive motor with a 2 HP oil pump motor per unit	N/A	B&W	Nov. 2004
Sulfur Dioxide Removal System for Unit 2	Dry flue gas desulfurization for Steam Unit 2	150 GPM each rotary atomizer (3), 11,500 RPM, 600 HP drive motor with a 2 HP oil pump motor per unit		Joy/Niro is now owned by B&W	1/30/78 (Commenced construction)
Sulfur Dioxide Removal System for Unit 2	Dry flue gas desulfurization for Steam Unit 2	(1) 150 gpm,11,500 RPM, drive, 600 HP drive motor with a 2 HP oil pump motor per unit	N/A	B&W	April 2005
Sulfur Dioxide Removal System for Unit 3	Dry flue gas desulfurization for Steam Unit 3	(6) 34 gpm,12,185 RPM, drive, 250 HP drive motor	NA	Alstom	July 2006
Sulfur Dioxide Removal System for Unit 4	Dry flue gas desulfurization	(6) 34 gpm,12,185 RPM, drive, 250 HP drive motor	NA	Alstom	December 2009
Particulate Matter Removal System for Unit 1	Baghouses	1,320,000 acfm at 160 °F (2)	NA	Joy	1/30/78 (Commenced construction)

Equipment	Description	Size	Serial Number	Model	Date of Commercial Operation/ Manufacture
Particulate Matter Removal System for Unit 3	Fabric filter baghouse	1,705,000 acfm at 175F inlet	NA	Alstom	July 2006
Particulate Matter Removal System for Unit 4	Fabric filter baghouse	1,705,000 acfm at 175F inlet	LKP-2x8SS5x26.5-IP2x18x25 (900)	LKP-2x8SS5x26.5-IP2x18x25 (900)	December 2009
Coal Handling System for Unit 1 and Unit 2	Unloading Transfer Tower Collector	12,000 cfm at 70°F	09285A	Johnson-March Model #PCT 12-10	
	Secondary Crusher Enclosure Dust Collector (DC-2)	27,950 cfm at 70°F	002858	Johnson-March Model #PCT 13-17	
	Sampler Enclosure Dust Collector	9,400 cfm at 70° F	09285C	Johnson-March Model #PCT 10-10	
	Silos Feed Tower Collector (DC-4)	27,950 cfm at 70°F	09285D	Johnson-March Model #PCT 10-13-17	
	Silo Feed Tower Collector (DC-4A)	27,950 cfm at 70°F	09285B	Johnson-March Model #PCT 10-13-17	
	Unit 1 & 2 – Dust Processing Center Dust Collector	2,325 cfm	Airtrol	Airtrol, Inc. 68BRST72	
	Unit 3 - Transfer Tower # 1& 2 Dust Collector	24,000 cfm	9-FC-MK-001	Airtrol, Inc. 276RRWT144	

Equipment	Description	Size	Serial Number	Model	Date of Commercial Operation/ Manufacture
	Unit 3 - Transfer Tower # 3 Dust Collector	18,750 cfm	9-FC-MK-006	Airtrol, Inc. 232RRWT144	
	Unit 3 - Transfer Tower # 4 / Silo Dust Collector	35,075 cfm	9-FC-MK-016	Airtrol, Inc. 428RRWT144	
Coal Handling System for Unit 3 and Unit 4	Unit 3 - Crusher Tower Dust Collector	34,975 cfm	9-FC-MK-012	Airtrol, Inc. 428RRWT144	July 2006
	Unit 4 – Silo Dust Collector	22850 cfm	4-fc-mk212	AirCure	Dec 2009
	Unit 4 – Transfer Tower Dust Collector	13550 cfm	4-fc-mk-172	AirCure	Dec 2009
	Unit 4 – Transfer Tower Dust Collector	26750 cfm	4-fc-mk-162	AirCure	Dec 2009
	Unit 4 – Dust Processing Center Dust Collector	24700 cfm	4-fc-mk-022	AirCure	Dec 2009
Lime Handling System- Unit 1 and Unit 2	Lime Silos Collector	--	345-78-4-3005-00	Fuller Co.	01/30/78 (Commenced construction
	Baghouses at Water Treatment Silos (4)	--	3710(1); 710(2) 3710(3); 710(4)	EVO Corp. Model #84WBO48C	
	Filter Baghouse	15,000 ACFM	--	--	1999

Equipment	Description	Size	Serial Number	Model	Date of Commercial Operation/ Manufacture
Lime Handling System- Unit 3 and Unit 4	Lime Silos Collector	500 cfm	66315-001-1	MAC MTV2	July 2006
	Baghouses at Water Treatment Silos (2)		6101 and 6600	84-BF-042-C	July 2006 And Dec 2009
Drift Eliminator on Cooling Tower Unit 3	High-efficiency drift eliminator	11 Cells 2"High, 48' x 48'	N/A	CDX-080 Brentwood	July 2006
Drift Eliminator on Cooling Tower Unit 4	High efficiency drift eliminator	11 Cells 2"High, 48' x 48'	N/A	CDX-080 Brentwood	Dec 2009
Ash Handling System Units 3	Units 3 Fly Ash Silo Dust Collector	10,271 ACFM	N/A	IAC-144TB-BV1-132:S6	July 2006
Ash Handling System Units 4	Units 4 Fly Ash Silo Dust Collectors A&B	6,248 ACFM	N/A	IAC-120TB-BVT-100:S6	Dec 2009
Mercury Removal System Unit 4	Activated Carbon Injection	120 cuft per hour	MT1600	07-3026	12/17/2009
Four – Evaporative Water Spray Systems	Evaporative Water Sprays on Ponds 1, 2, & 3 for freeboard control.	900 gpm per unit x 4 pumps	B738FO78-1, 2 B738FO79-1, 2	3796	March 2009

ATTACHMENT "D": PHASE II ACID RAIN PROVISIONS
TUCSON ELECTRIC POWER PLANT - Springerville Generating Station

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Arizona Revised Statutes, Title 49, Chapter 3, Article 2, Section 426.N, and Titles IV and V of the Clean Air Act, the Arizona Department of Environmental Quality issues this Phase II Acid Rain Permit pursuant to Arizona Administrative Code, Title 18, Chapter 2, Article 3, Section 333 (A.A.C. R18-2-333), "Acid Rain".

2. SO_2 Allowance Allocations and NO_x Requirements for each affected unit

		2017	2018	2019	2020	2021	2022
Unit 1	6099	6099	6099	6099	6099	6099	6099
	NO_x limit	Unit 1 shall be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/MMBtu of heat input on annual average basis.					

		2017	2018	2019	2020	2021	2022
Unit 2	5765	5765	5765	5765	5765	5765	5765
	NO_x limit	Unit 2 shall be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/MMBtu of heat input on annual average basis.					

		2017	2018	2019	2020	2021	2022
Unit 3	NA	NA	NA	NA	NA	NA	NA
	NO_x limit	Unit 3 shall be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/MMBtu of heat input on annual average basis.					

* The number of allowances allocated to Phase II affected units by U.S. EPA may change in a 1998 revision to 40 CFR part 73 Tables 2, 3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

		2017	2018	2019	2020	2021	2022
Unit 4	NA	NA	NA	NA	NA	NA	NA
	NO_x limit	Unit 4 shall be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/MMBtu of heat input on annual average basis.					

3. Comments, Notes and Justifications

Tucson Electric has early-elected for NO_x requirements on Unit 1 and Unit 2.

4. Permit Application

The Permittee, and any other owners or operators of the units at this facility, shall comply with the requirements contained in the attached acid rain permit application (OMB No. 2060-0258) signed by the Designated Representative Charles Komadina.